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Vol. CLXXVII No. 2313 WITH WHICH IS INCORPORATED THE GRAPHIC MAY 20 1944

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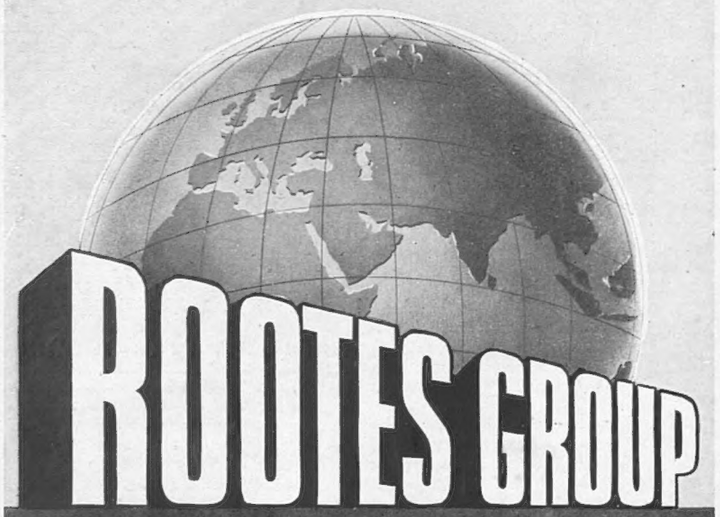

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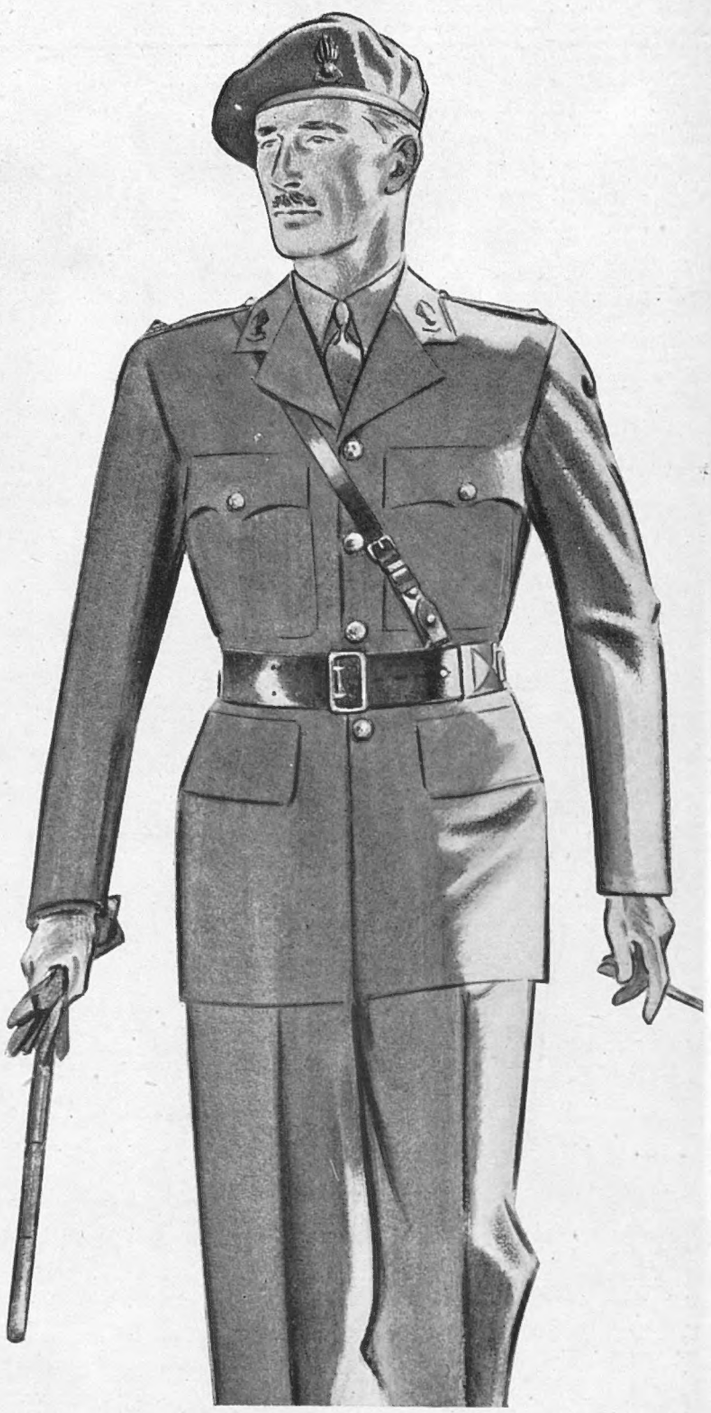

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Volume CLXXVII No. 2313 The SPHERE, London, May 20, 1944

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

THE "HUMAN TORPEDO" OF THE ROYAL NAVY: THE SECRETS OF THIS LATEST BRITISH WEAPON REVEALED. How the torpedo is launched into the water from the parent ship, showing the tiny vessel's construction and the two seats for the crew

In this issue we are enabled to reproduce a number of pictures just released by the Admiralty of two of the new weapons of the Royal Navy—the "human torpedo" and the midget submarine. The former is shown above. By means of these devices an Italian cruiser was sunk at Palermo in January last year and an 8,500-ton transport was crippled (and later sunk). Both torpedo and midget submarine have just been shown at a demonstration given at a northern Naval Training Base. The men employed in these special craft undergo a very stiff medical examination; even so, about 30 per cent. fail to complete the 4½ months' training course. Each of the two men for the human torpedo wears several layers of thick woollen clothing and a 40-lb. diving-suit with visor: the nose is clipped and in his mouth he carries an oxygen tube connected with small bottles strapped behind the back. When ready for action a warhead is attached to the front of the torpedo, and the vessel submerges as it nears its target. (See also page 227)

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A WAR NEWSLETTER —No. 246

1, NEW OXFORD STREET, W.C.1.

Sebastopol.—The Red Army captured Sebastopol by storm on May 9. The Russians are remarkable for their ability to keep their enemies and their friends guessing. We in Britain in the past two months have regarded the taking of Sebastopol and the final clearing of the Crimea as a distant prospect, as an immediate certainty and as a strangely-delayed event. We explained the "delay" by the assumption that Stalin would now keep step with the Western Allies and that the lull would be more or less continuous on all fronts until the Western assault was launched. But now Stalin has struck again and the great fortress is in his hands and the Crimea is all but clear of the enemy. So there is "news" again and a chance for banner-headlines and a counting of booty and prophecies of next moves. On the evening of the day on which Sebastopol fell, I heard a wise and timely talk on Russia by a doctor who had recently returned thence. He interested me because his remarks seemed to confirm, by his experiences, *theories* which I had recently ventilated. He had been there and found out for himself. I had sat at home in an arm-chair and read between the lines of the news and the gossip. But practice and theory for once joined hands—and agreed on a verdict. We shall be all at sea and cross purposes if we judge of Russian actions and reactions, on the premise that Russian minds work as ours work. Their minds do not. Why should they? They are at once proudly self-sufficient and vulnerable to our criticism, suspicious and self-confident, friendly and reserved; they share with us and withhold; admire us and despise us; need us and find our friendship embarrassing. The curse of Babel still (and for long years) must divide us. A common language of speech and thought must be the work not of years but of decades and generations. Meanwhile, we get on as best we can with interpreters and good guessing, with patience and surprises, and an oil-can—*à tort et à travers*, but always with good will. But we must expect surprises all the time.

Optimism and Logic.—Well I know that a man or a Government will get nowhere in a forward direction without an ideal, optimism and almost insane faith. All these things must be part and parcel of all our planning. The phrase "brave new world" implies that—that reckless bravery is required to plan a new world. Therefore I am reluctant to drag any soaring soul back to the pavement or muddy gutter. Yet men walk on pavements still (even in the air age), and we cannot build on dreams only. What I dread is always that our brave dreams and fine faith in human decency, sense and restraint should soar too high beyond any contact with the pavement of workaday progress, and one day (and all too soon) bring about a disillusionment which will cause us petulantly to fling ideals to the winds, and declare that there is no good in humanity and that men refuse to save themselves and their civilisation. We shall need those ideals and all our faith still, and more than ever, after the first inevitable disillusions and disappointments. That is why we must not tax them *too* highly now. There are snags ahead in plenty—even for moderate optimists. A moderate optimist is one who observes the utter hell which mankind has created of late years of human life and yet admits that from man-made suffering and misery lessons *have* been learned and some good has already come towards the betterment and promise of betterment of existence and justice for all mankind. I shall hang my comments on two of these snags only. They stick out and make convenient pegs. (But there are *scores* besides these two.) The inexorable logic of economics and —Russia.

DOMINION PREMIERS RECEIVE THE FREEDOM OF THE CITY OF LONDON

In the Guildhall last week, Mr. Curtin and Mr. Fraser, the Prime Ministers of Australia and New Zealand, received the Freedom of the City. They are seen in the above picture standing side by side while listening to the speech of welcome by Mr. Alan Pickford, the Acting City Chamberlain. The Town Clerk then read the Order of the Court of Common Council, which was proposed, seconded and approved by the Councillors unanimously raising their hands. Mr. Curtin and Mr. Fraser made their declaration of loyalty in the ancient form, promising to "pay their scot and bear their lot," and be in all respects faithful subjects of the King and citizens of the City of London. The Guildhall ceremony was followed by a luncheon at the Mansion House, at which Mr. Curtin and Mr. Fraser were the guests of the Lord Mayor, Sir Frank Newson-Smith

The Economic Snag.—The average man in Britain has horse-sense. He is no dreamer. He understands his own business or the logic of his private purse. He knows how many blue beans make five, and what he can and cannot do on £4 or £40 a week. John Citizen knows that if he is assured of £4 a week, and pays no more than 7s. a week for his cottage, he can support his family, if it be a small one, in tolerably happy conditions of freedom from want in a small way in the country, with the resources of his cabbage-patch and chicken-run, and so on. But he knows also that, if for five years he should be so foolish or unfortunate as to "go to the dogs," run up heavy debts with his "Co-op.," incur liabilities with the local bookmaker and with his cronies at the "pub," borrow freely, part with his furniture and gear, and in every way mortgage to the hilt his capital and potential earnings, then the future will be less rosy and his £4 a week will cease to buy for him his freedom from want. He takes that argument as Bible truth. And he simply cannot—perhaps it is his lack of education—comprehend the argument which clever economists are to-day constantly putting forth that what is true of the individual is totally false of the nation. When for five years a nation goes berserker and drops all its treasures into the sea, sacrifices all its foreign investments and credits, and spends uncountable and unrecoverable millions every week in producing instruments designed both to destroy and to be destroyed, that nation (these economists argue) is in quite a different category to the individual who does these things. The nation is positively assuring to itself greater prosperity than ever before. If it will but go on spending and pledging its credit on the same munificent scale, but this time on public works and public welfare, it can be assured of a golden age of plenty and prosperity. We crack our ribs over those old Chancellors—Gladstone (or back, if you please, to Henry Petty of the Trafalgar era)—who worried about these absurd pennies. We crack our ribs because they based national Budgets on the proposition that *what is true of the individual is in economics true also of the nation.* We are assured that they 'were wrong, *benighted.* But where are the *facts* which prove them benighted? They are not available. No nation has ever yet made the experiment, and succeeded with it—the desperate experiment now enthusiastically determined on. Who is the madman? Who is benighted? Only to-morrow can show.

And Russia?—And Russia? Here's a ticklish theme. Here's a haphazard choice from a bunch of snags. How much—how infinitely much—depends on Russia now and in the years ahead! And what do we know of Russia and the mind of Stalin? Much more than we knew a year ago, four years ago. We know now her tremendous purpose, her mighty power, some of her aims and ideals, the measure of her willingness to suffer and endure, the immensity of her sacrifices, the unexampled grandeur of her unity and discipline as a nation. And this knowledge may well terrify us, as it steals our admiration. Not from "fear of the Communist bogy." Goebbels' bogy never did (and I doubt not never will) affright us. Communism cuts no ice in Britain, and we are well satisfied that Russian Communism is neither aggressive nor aims at world revolution. Fear of Russia only comes to us (who think) when we observe how common is the tendency to regard Russia as just one of four benevolent "democracies," allied to resettle the world round a table on a basis of Christianity and natural frontiers, in an atmosphere of international idealism. We know much more of Russia than we did. My friends, high and humble, travel out sometimes to Moscow and elsewhere, and they meet a warm and cordial welcome in a country famous for its hospitality and genial kindness, as it is famous for so many nobler virtues. But they find themselves foreigners there and, as such, observed and "taken care of" as foreigners must expect in a country at war. The secrets of Russia are not for them. They may even get a hint that militarily the triumphant Russia of the glorious young Marshals (cf. Napoleon's Empire at the apex of his triumphs) regards the Briton and American, even in their bemedalled uniforms, in Moscow streets as pleasant-mannered amateurs in war and well intentioned well-wishers of the conquerors of Nazism, rather prone to talk and generous in promises. If you have been of late in Moscow, don't be angry or shocked, but examine your memory and see if it may not bear the stamp of truth. There is not, I think, anything to surprise, or necessarily to frighten, us in this manifestation, if it be true. (It may, of course, be a *damper.*) To my mind, it is inevitable and utterly natural and in accordance with human nature and historical precedent. (Nothing, indeed, could be more genial, almost childlike in its charm and apparent simplicity, than Russian hospitality.) But if we refuse to see it or acknowledge it; if, knowing so little of the mind and will of Russia after her sacrifices and triumphs, we obstinately invest her in her seat at the coming round table (as just another of the benevolent-Great-Powers-in-unity-and-alliance) with a Western mind and one eye always on the Atlantic Charter, then, I fear, one day we may hit a snag and shipwreck some of the frail cargo of too high hopes. The truth is the simple Russian of to-day is, like the Volga, very strong and very deep.

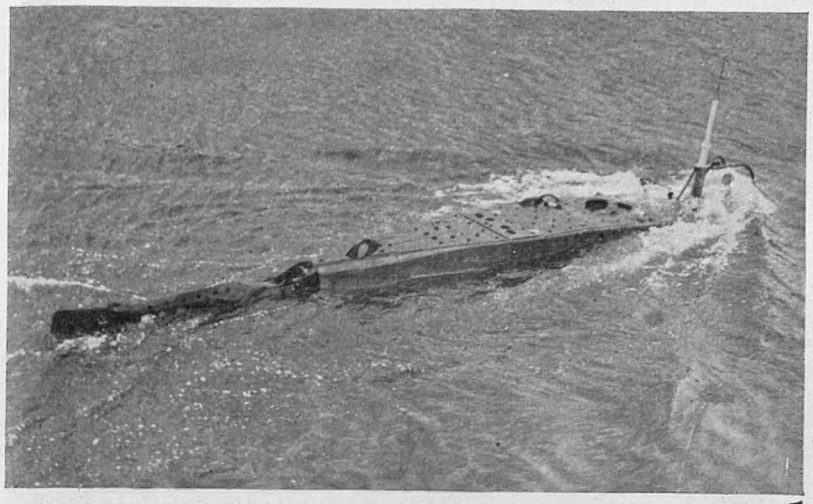
Flowers to Shoreditch.—When the Queen visited Shoreditch the other day, she remarked, on seeing the museum, that the flowers, set out to benefit the children, were a great help for their education. Shoreditch is not "a garden of England," and it would be a real kindness if any readers could send summer flowers now and again to the manager, Mrs. Harrison, The Geffrye Museum, Kingsland Road, E.2. If your garden is not now all composed of cabbages, such an action would help to brighten up the lives of those children living in Shoreditch. It would be well worth the time and trouble, in spite of the difficulties of packing and the regulations on sending cut flowers. In short, it would be a relaxation from austerity, justifiable even at this critical phase of the war.

THE OLD STAGER

NOTE.—For the last sixteen years "The Old Stager" has contributed this weekly article to THE SPHERE *without a single break—a remarkable journalistic feat. Now, after the strain of four and a half years of war, he has been ordered a short rest. Consequently, our readers may consider it pardonable if this "Newsletter" does not appear for the next two weeks.*

THE MIDGET SUBMARINE OF THE NAVY

Used Against the German Battleship *Tirpitz* in the Alten Fiord



THE TINY VESSEL SURFACES: Within this midget craft there is a crew of four—three officers and one rating. The vessel is about 40 ft. long, and the men aboard live on tinned foods

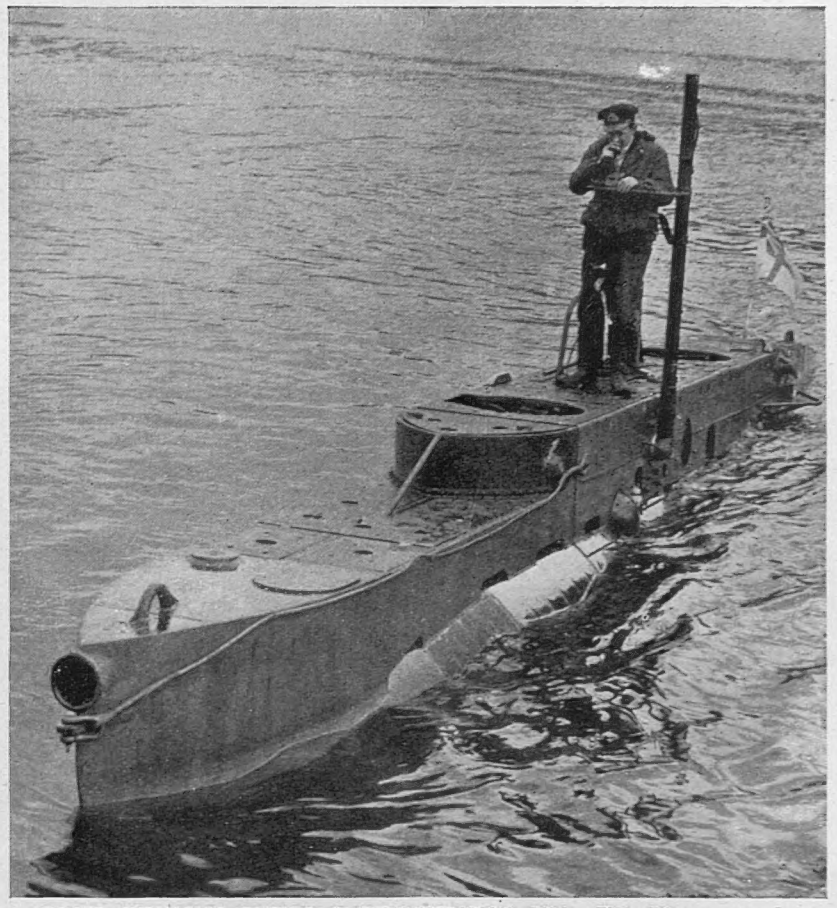
THE CREW OF THE SUBMARINE CLIMB OUT of their craft through a hatch in the deck. The skipper stands on the right

The midget submarines, known as "X" craft, are like ordinary submarines but much smaller and even more cramped. They have no conning-tower, the only superstructure being a guard rail for the two periscope-tubes and a mast-like air-vent: to this is attached a steel arm with a strong leather belt, to which the captain straps himself when on the deck. As the deck is a bare 2 ft. above the water, he needs a special waterproof suit. The submarines are manned by a crew of four, three officers and one rating, who attends to the engine-room. They are 40 ft. in length: a normal-sized man can stand up with comfort at one place inside the hull. The men on board live on tinned food; during the attack on the *Tirpitz* one crew had soup, chicken and strawberries

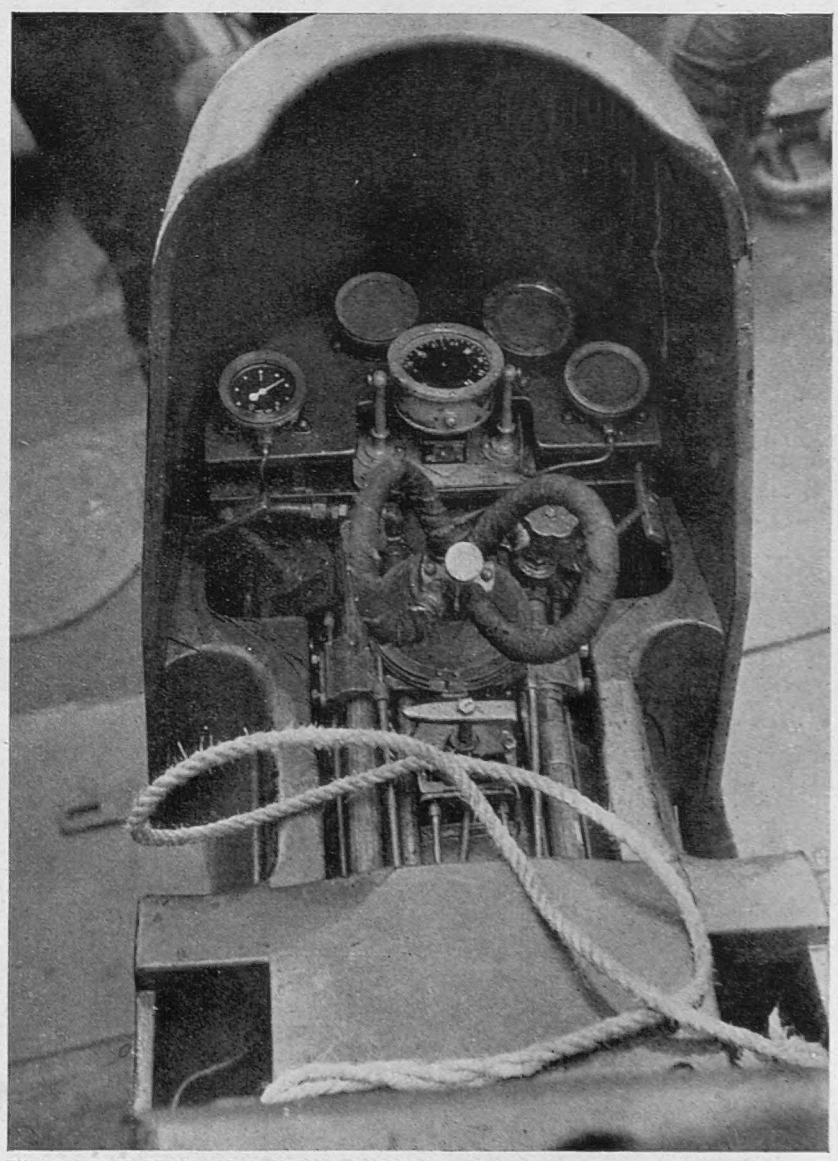
THE TWO-MAN HUMAN TORPEDO

Used Against the Italians in the Mediterranean Last Year

THE HUMAN TORPEDO IS LOWERED INTO THE WATER: The war-head will later be affixed in front of the shield to the right: the places for the two men are clearly seen in this picture

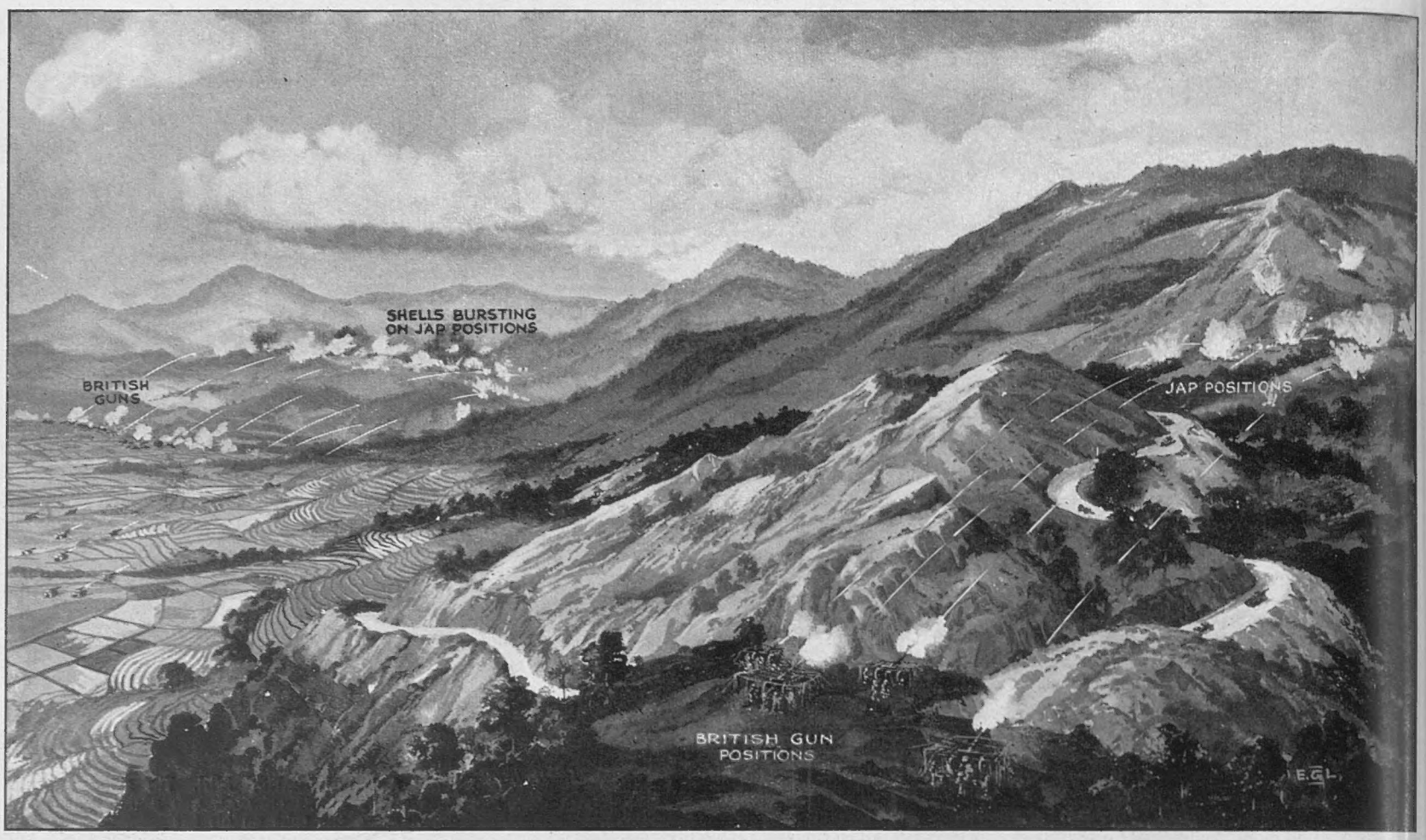


A MIDGET SUBMARINE DURING A DEMONSTRATION RUN. The skipper stands on the open deck and gives orders to his crew through a microphone: he is strapped to the tube on his left



THE CONTROL-PANEL OF A HUMAN TORPEDO. This is where No. 1 sits: he steers by means of the rubber-handled joystick, below which is a dashboard of luminous dials

The human torpedo looks like any other torpedo, except that two men sit astride it, and in front of each of them is a high-curved shield. No. 1 of the crew sits in the first saddle and steers. The torpedo's war-head, containing the explosive, can be detached easily by a handle by No. 1 as soon as the target is reached, and No. 2 slides off into the sea to fix it to the bottom of the hull of the vessel being attacked. If the engines cease to function below the surface, the crew can easily rise. On their outward journey, they go down to about 100 ft. and the helmsman then steers by compass. The instrument-dials are luminous and can easily be read under water

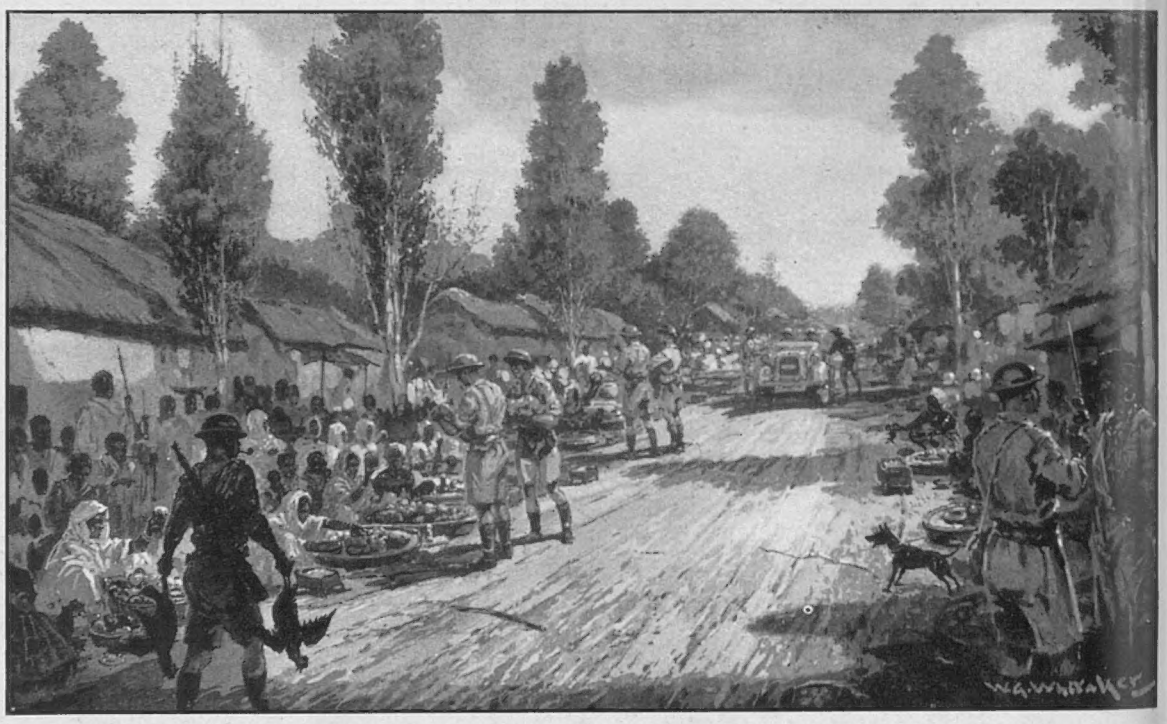


FIGHTING ABOVE THE CHESSBOARD PATTERN OF THE IMPHAL PLAIN RICEFIELDS : A hill-crest action on the eastern side of the Manipur Plain, showing tanks and guns operating amongst the fields and hills some 12 miles to the north-east of Imphal—*Drawing by W. G. Lambert* (See notes below)

THE IMPHAL BATTLEGROUND

Where the Fourteenth Army Have Been Fighting the Japs in the Manipur Plain
—*Special* Sphere *Drawings*

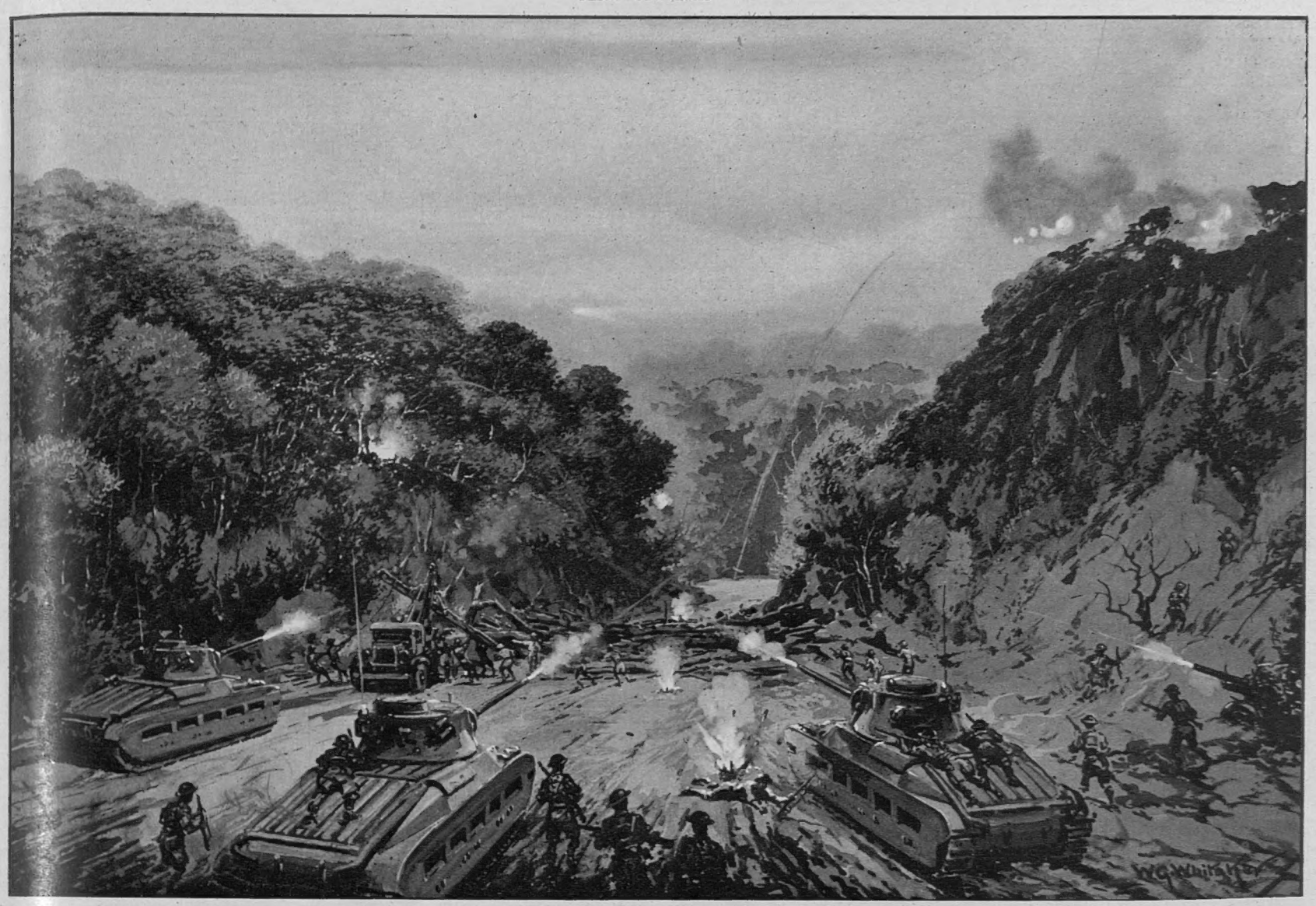
In order to press them as far back as possible from the neighbourhood of Imphal, actions have been taking place against the Japanese in the jungle-covered hills in the north-eastern sector of the Manipur battle area. Fighting has been taking place partly on the hills, where the road bends and twists its way towards Ukhrul and where a varied fighting terrain is presented. Away to the right in the drawing reproduced above Allied troops are seen pressing up the roadway to clear the Japs at a road-block in the hills: towards the left the ground sweeps steeply down to the Plain of Imphal. Here tanks may be observed operating among the glistening ricefields which everywhere cover the levels and the slightly rising ground at the plain's edge. The industrious Manipuri make the most of every inch of the ground for the cultivation of rice, the fields rising in cleverly contoured layers, one slightly higher than the other, so that irrigation from above feeds all the paddy-fields below. The point depicted in the drawing lies some 12 miles to the north-east of the Imphal township. The heights amongst which the Japs are ensconced (to the right) are about 4,000 ft. above sea-level. The guns employed on the British side are mainly 25-pounders, and the range at which they were firing was 4,500 yards



IN THE MARKET PLACE OF BELEAGUERED IMPHAL : The curious situation in the capital of Manipur State, cut off from India, but otherwise unaffected by the Japs—*Drawing by W. G. Whitaker*

The curious fighting situation in Burma has been particularly evident around the two main defence centres. At Kohima there are Jap forces actually defending themselves within the area of the station itself : at Imphal, the State capital of Manipur, the conditions are almost as strange. One could walk about the native market and make purchases from the Manipuri dealers without sensing the presence of the Japanese threat. At Kohima there is daily a rattle of musketry : at Imphal one strolls out of the Residency area, with its British-Indian neatness, into the native quarter without feeling that one may be in danger of encountering a wandering bullet. The Manipuri natives are busy bargaining with the Allied infantry, who are indulging in food or other purchases ; souvenir-hunting goes on, as it always does when soldiers have a little time on their hands. Yet, away in several directions Jap columns have been endeavouring to close in on Imphal and are only kept back by most strenuous fighting on nearby roads and hillsides. Japs from Kohima worked round recently into the Silchar-Bishenpur area and thought to strike at us from that direction as well as from the Ukhrul hill-tracks

GENERAL STILWELL IN ACTION IN THE BURMA JUNGLE : *On left*—The General (on right) is seen with his son, Lieut.-Colonel Joseph Stilwell (known as "Young Joe") conferring by the roadside. The Colonel uses a cigarette-holder and juts out his chin like his father ; he is an Intelligence Officer. In the centre is Captain Dick Young, Hawaii-born Chinese, who is the General's aide-de-camp. The centre picture shows General Stilwell with Brig.-General Frank D. Merrill, commanding officer of the First U.S. Infantry Unit to fight in Burma, known as "Merrill's Marauders." On the right, the General is seen with the Chinese General Liao Yao-Hsiang, commanding officer of the 22nd Division of the Chinese Army (see *also* pp. 230-231)



FORCING A JAPANESE ROAD-BLOCK IN THE MANIPUR HILL COUNTRY. Allied tanks, guns and infantry advance to the block, which has to be forced by the infantry and then cleared before the highway can be freed—*Drawing by W. G. Whitaker*

News from both the Imphal and the Kohima areas has been full of references to the clearing of Japanese road-blocks. Both places have at times been pressed hard by the Japanese, but so fluid has been the fighting that columns have been operating in several directions from both places, at distances from 20 to 30 miles from their technical "bases." In nearly every case, these columns have been engaged in the tiresome work of clearing blocks or obstacles from the road-ways through the jungle which clothes all the hills surrounding both Imphal and Kohima. It has seemed to matter little that fighting has been occurring in Kohima itself, that a Japanese force has been holding the District Commissioner's bungalow; the task of road-clearing has gone on. It is an awkward enough job, this forcing of a way along a jungle-lined road up to one of these blocks—a mass of felled trees, rocks, any impediment which the site affords. Guns may play upon it, but the task of the engineers is a lively one. The infantry creep forward, supported by tanks: with the aid of the engineers' demolition party, some tanks at last smash a way through. But on the hillsides are infuriating nests of mortar-throwers. These too have to be cleared. It needs much experience and jungle technique of a high order to clear the road-blocks

THE NATURE OF THE COUNTRY ROUND MANIPUR. Advancing north from Imphal, capital of the border State of Manipur, British troops have recently scored successes against the Japs and have been "mopping up" on the Imphal-Ukhrul front: they have occupied the village of Kanglatongbi, and reinforcements of the British Fourteenth Army are now moving steadily along the mountain highway towards Kohima, following the Japanese failure to capture that Allied base, their first objective within the Indian frontier. The number of Japanese dead on this front up to the end of April has been conservatively estimated at about 5,000. The hill country within this area is a jumbled mass, as indeed is shown in the above picture taken on the Imphal-Ukhrul road: in the centre of the view is an Allied tank moving up along the twisting, precipitous highway

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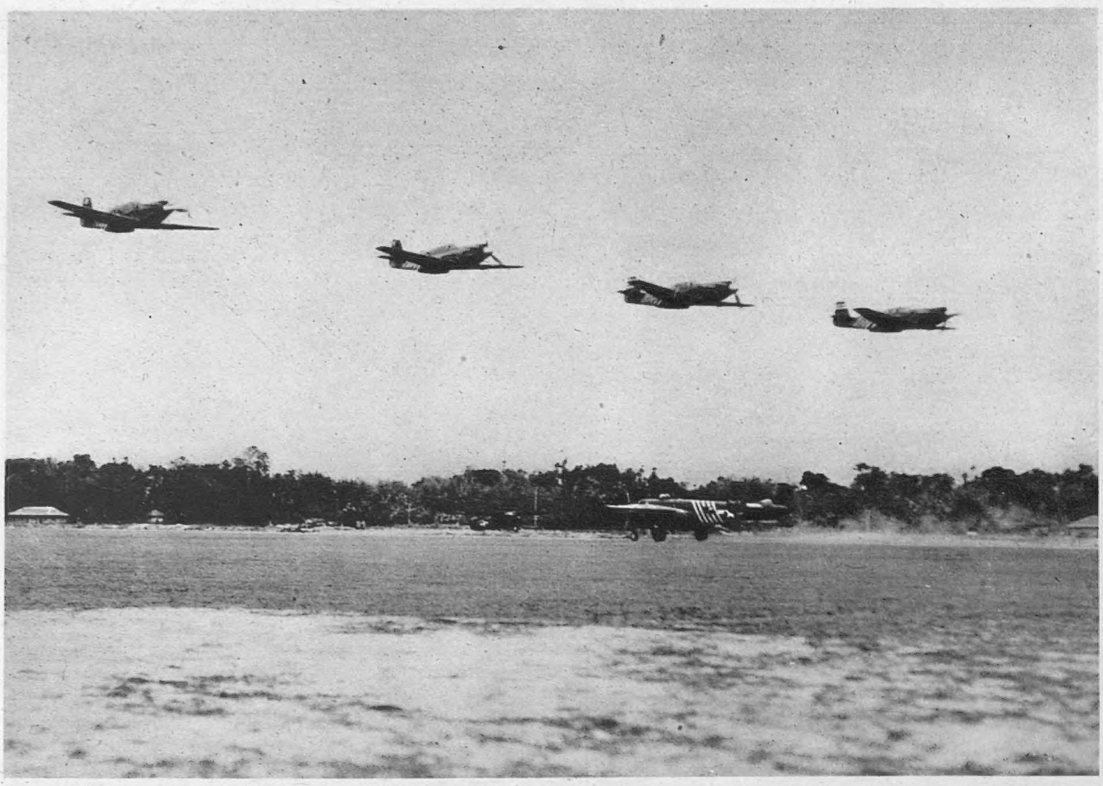


DURING THE AIRBORNE INVASION OF JAP-HELD BURMA BY THE CHINDITS. Mustang fighters take off for "Broadway," the field behind the Japanese lines which was cleared and constructed as a base for fighter planes and bombers

One of the most successful blows against the Japanese in the Far East was the surprise landing behind the enemy lines in Burma of a large force of Allied airborne troops. The British ground forces were led by the late Major-General Orde Wingate, since killed in an aircraft crash. The glider operations were directed by Colonel Philip Cochran, leader of the First Air Commando Force of the U.S. Army. Plans for an airborne movement in the China-Burma-India theatre began in August 1943. General Henry A. Arnold, commander of the U.S. Army Force, quartered Colonel Cochran and other U.S. officers in a Washington hotel in the early stages. General Wingate, who had already successfully operated behind the enemy lines in Burma, was chosen to dovetail the ground operations. Then came the night landing at "Broadway"—the name for the rendezvous behind the Japanese lines. After the ground troops had been brought in, fighters and bombers landed on hastily-cleared fields to support the attack

The Campaign in Burma (continued)

FIGHTING IN THE "CHINDIT" COUNTRY

With a Vivid Exposition of Jap Methods of Combat in the Jungle

On right—

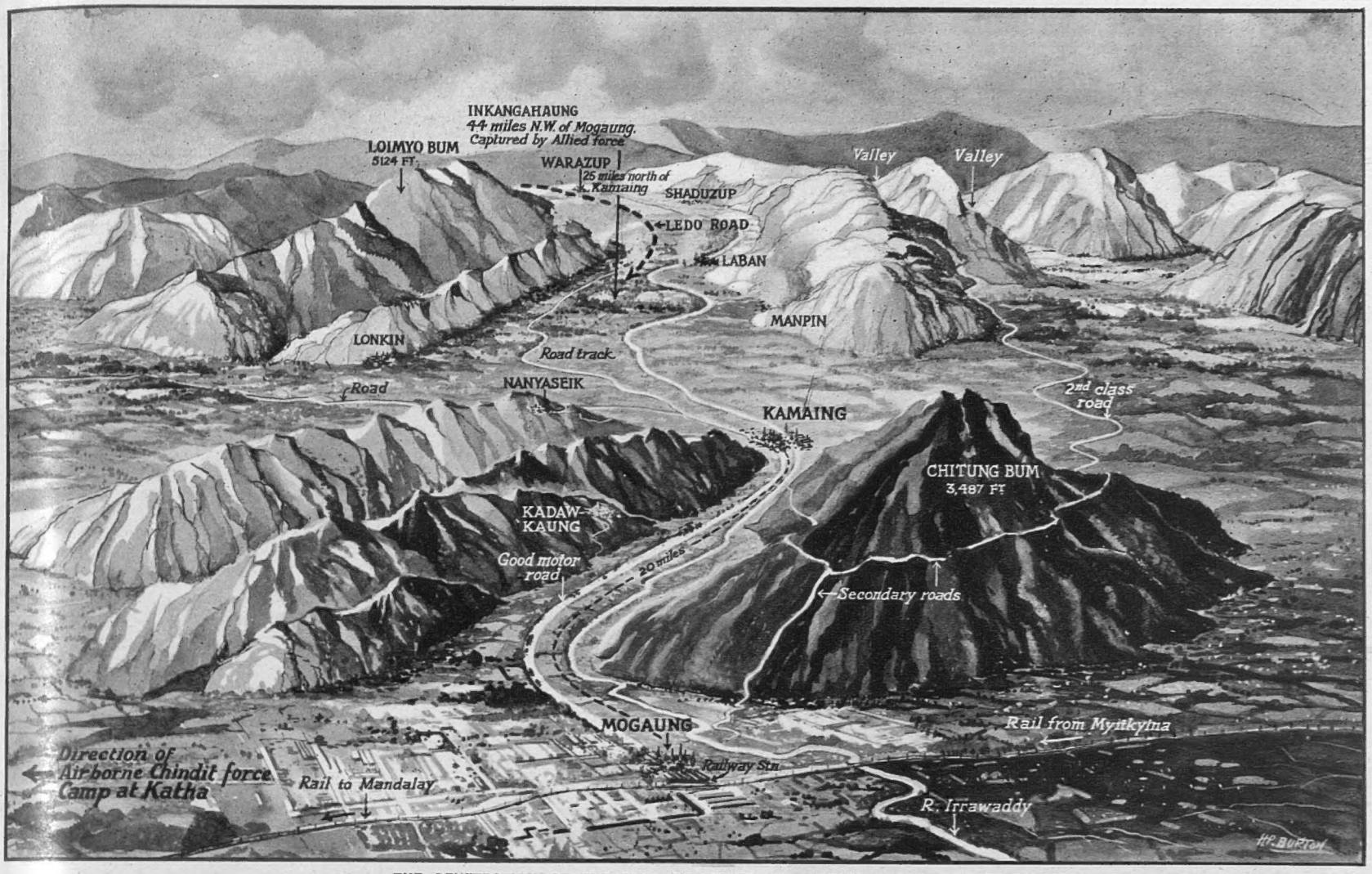
Ever since General Stilwell, commanding the Chinese troops in Burma, drove the Japanese out of the Hukawng Valley, he has been advancing south towards Mogaung. But progress has been slow, due to the narrowness of the valley and also to the stiffness of the resistance.

It has been difficult to follow the various actions, as the area is little known and the maps do not show all the villages mentioned. After the capture of Shaduzup, some 40 miles to the north-west of Mogaung, on March 26th, there were few place-names given till Warazup was taken on April 20th by the Chinese troops. This was stated to be a key point on the main road to Mogaung.

General Stilwell has been supported by an American Tank Force, using medium tanks, which have done excellent work in driving out the enemy. Other Chinese troops have been operating to the east of the Mogaung Valley, occupying a couple of villages on April 29, and penetrating Japanese positions in the direction of Laban and Manpin. The progress down this part of the route to Mogaung has not been rapid, but has been continuous.

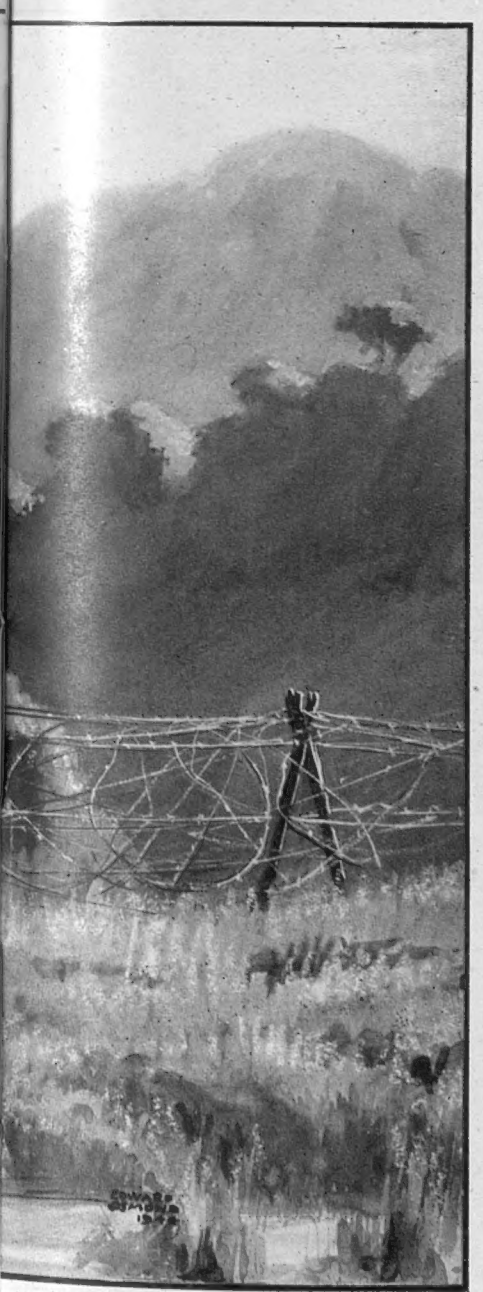
It will be seen that south of Manpin the valley opens out; the road-track keeps to the west of the Mogaung River, which flows through Kamaing to Mogaung. Once clear of the valley shadowed by Loimyo Bum (5,124 ft.), the pace of the advance should be better. After reaching Kamaing the hills certainly close in again, but there is the counter-vailing advantage of a good motor road some 20 miles in length all the way to Mogaung. The hills south of Nanyaserk rise to over 3,000 ft., while to the east Chitang Bum rises to 3,487 ft.

THE TYPE OF FIGHTING IN WHICH THE CHINDITS HAVE BEEN ENGAGED. THE CHINDITS ARE THE MEN FORMERLY COMMANDED BY THE LATE GENERAL Japanese lines by air. In one battle in the Burmese jungle, the Chindits repelled a fierce Jap assault during the night: when morning came, it was discovered of the British position; some of the enemy were actually found to be hanging—nude—on the barbed wire—*Drawing by Edward Osmond* (See

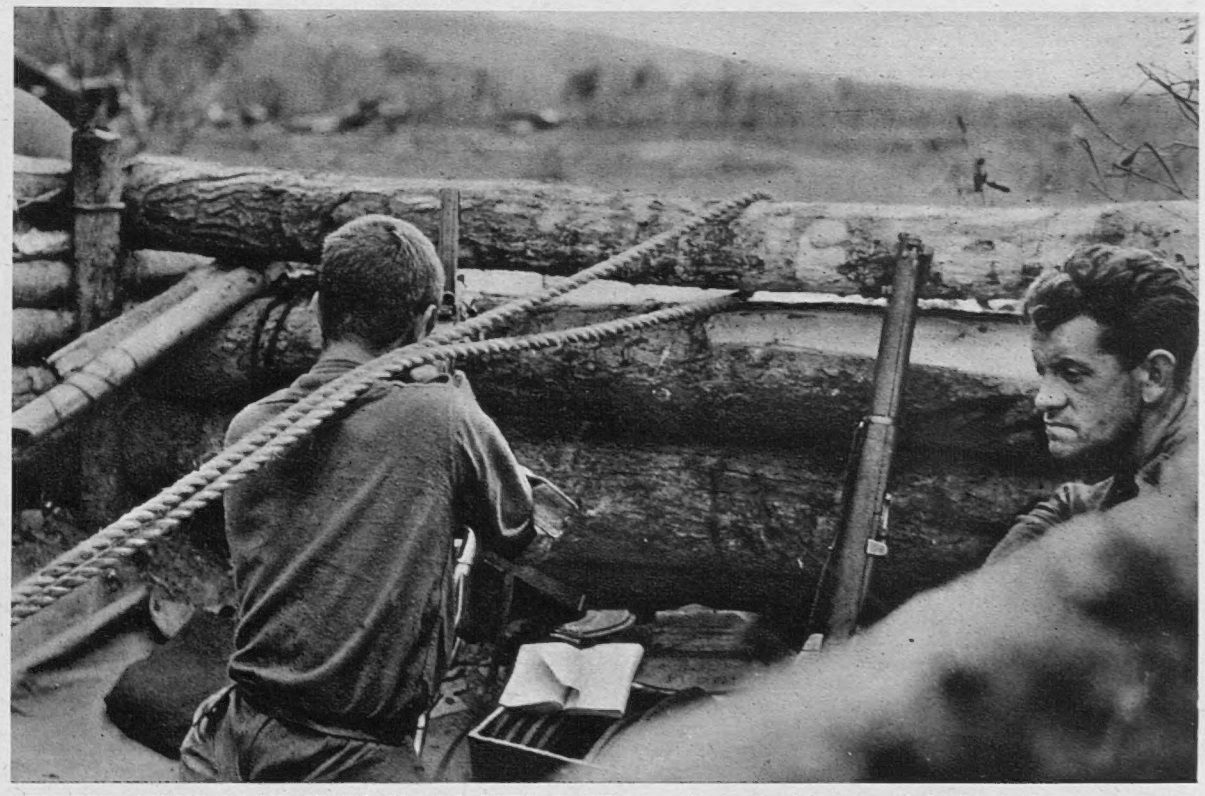


THE PENETRATION OF THE STILWELL FORCE OF AMERICANS AND CHINESE TOWARDS KAMAING AND MOGAUNG. This force is still a good distance from its desired objectives, which must be reached before the coming of the monsoon : the Ledo Road into China would then be well behind them and quite secure from Japanese attack—

—Drawing by E. G. Lambert (See notes at left)



WINGATE, who were landed behind the that over 1,000 bodies were strewn in front *notes at right*)



AFTER THE LANDING BY AIR BEHIND THE JAP LINES IN BURMA : Wingate's Chindits and Cochran's Commandos fight off Japanese snipers at "Broadway," which had to be cleared as a base for fighter aircraft and bombers supporting the ground troops. The Allied soldiers had to drive the Japs from machine-gun nests which the infiltrating enemy had managed to construct right on the runway

On left—

The Japanese have attempted to stop the destructive work of the Chindit forces operating against their lines of communications in the Indaw district, in the vicinity of the main line running from Myitkina to Mandalay. They have sought to check the operations against railways, roads and even traffic by attacking certain positions with great ferocity.

During one recent night attack the Japs hurled themselves against the wire guarding the position. They came on again and again, each wave being beaten back by rapid fire from the defence. When dawn came, it was discovered that over 1,000 bodies were strewn on the line of approach. Some Japanese were actually hanging on the wire. Of these several were stark naked.

Many of the Japanese infantry seem to evince a liking for fighting in a state of nudity. It is one of the astonishing revelations concerning this unpleasant type of fighting man. Australian and American forces which have come in violent contact with the Japs in New Guinea and the Pacific Islands have gained the impression that they have been fighting a race which is scarcely human. They whimper and cry like animals when, after a desperate defence, they are driven out of their strongholds by an Allied onslaught. They make odd, writhing movements on the ground and certainly do not die with dignity.

The airborne Chindits, operating in the Katha district, have greatly assisted Stilwell's advance by breaking the supply routes of the enemy.

THIS IS PARIS TO-DAY. . . .

A Picture of Life in the French Capital After Four Bitter Years of German Occupation. By FERDINAND TUOHY

MAY is a month when many thought of Paris in her special beauty. This May there is reason to think of her for another reason. In the months of ordeal that have already begun, things may happen to Paris that are capable of altering in permanence the face and life of the Ile de France. It is, in fact, a fitting moment to commit to paper any tribute which may not yet have been paid to Paris in these war years.

Tribute? Not exactly! I merely want to tell you something different about Paris, something which has not yet been presented in the light it deserves.

Essentially, two portraits of Paris, the life led there, have come to exist in our minds. One is of a small but flamboyant company of collaborationists *couchants* as distinct from *debout*, hitting the high spots with the Germans, in hectic possession of hotels and mansions, restaurants, cafés, theatres and cabarets of world-wide renown. (In case there should be any misunderstanding about that *couchants*, it means people voluntarily playing the German game. The *debout* variety are those compelled to have dealings with the Germans for many reasons, but chiefly in order to live or to keep others living.)

MILITARY TARGETS IN THE CENTRE OF THE CITY: In September of last year, the Nazi-controlled Paris Radio announced that "Anglo-American Air Forces carried out a new Terror Raid on Paris to-day, September 3. For the first time in these raids, the centre of the capital has been hit, particularly districts on the left bank of the Seine. Damage and the number of casualties appear to be very great." This aerial photograph shows what lay behind this typical Nazi announcement: In the left foreground is the Vélodrome d'Hiver, behind which can be seen the long sheds of the Citroën works—a military objective of great importance. On the right bank, adjoining the second bridge, are the repair works of the Peugeot factory—another first-class military target. Running down the centre of the River Seine is the Ile des Cygnes, with the Pont de Passy in the foreground

The second picture that has come through to us is an infinitely vaster canvas. It shows, around those willing Parisian collaborators, a hushed, austere citizenry, bearing up, and expectant, yet giving much sign of lassitude, and strangely silent for Parisians; furtive, too, their overriding thoughts—how to come by nourishment and to avoid trouble.

Well, for a long time a third aspect of wartime Paris has been interwoven with the foregoing. It may not be as clearly defined as it was some while ago. That it is still in evidence, Paquis testified on the Radio when he turned on the bombed Parisians with this: "In spite of last night's tragedy, Frenchmen are already finding excuses for the Allied bomber pilots. When the roar of machines was heard over Paris these people were overjoyed and wished the Allied formations a good bombing run. To-day, when a part of Paris is aflame, these people seem to see in the fires a gigantic torch of victory."

Shall we call it "Invasion Paris," asking only that bombing shall have an immediate purpose and be executed, so far as humanly possible, in precise conditions? At any rate, it may well survive in lore beside Paris of the Incroyables and the Serveilleuses, of the Muscadins, Romantics and Communards, and I heard about it from one who had lately sat at "his" café on the boulevard, entirely unbeknown to the Gestapo and its Paris police friends. "This little-known Paris," X assured me, "is none the less the one that matters most. It takes the form of a conspiracy to keep the upper hand over the Germans, despite their ghastly bullying, and to let them know it. In it lives the true spirit of Paris, mocking and *gamin* piercing for dullards."

The open conspiracy operates in threefold fashion. Firstly, by keeping up morale by a disdainful humour directed at the Boches, but so cloaked as to mystify them. Secondly, by keeping going as much of *la vie Parisienne* as possible, not out of flippancy or cynicism, but from pride and affection and in contempt of the boors temporarily battening on it. Thirdly, by a common bond of "making do" in the most unlikely ways, a resource and resilience keeping aloft Parisian independence.

It is a Paris of ruse and double-meaning, of bland innocence and "regrettable errors" at the expense of "*Ces Messieurs*"—the only appellation by which the Germans are known. A Paris of camouflaged feelings, in which persons and happenings are not always what they seem; even a Paris harbouring some "traitors" who should be acclaimed to-morrow as heroes. Its tone and temper are set by the younger women, who wear hats printed in brilliant colours and tilted at all angles. Colours must be "madly daring," and the popular spring model is a mixture of "flowers, birds, spring and the blue skies." Incidentally, the person who wrote that the reason British women are not wearing kindred hats is because they "dislike the idea of ostentation at such a critical time" is the sort who leaves others to explain that all the English are not superiorly smug through ignorance.

The one idea is to flaunt colour before the Boches, who thought to make Parisians do unending penance. Colour—brightness—hope. Of course, these hats lead to one thought—hope. It is much the same with frocks, jackets, bodices, skirts, coats and costumes, which may be of basic black but are brightened by brilliant patches of colour, with scarlet, green and royal blue as the current favourites. Great play is made with scarves and gilets, as with anything detachable. Most is scrounged or made up from bits and pieces of the past. Rejected old print dresses, quilts, curtains and bathing-costumes are called in: with high-heeled, multi-coloured wooden shoes to match.

Hats can be hired by the day, and that helps when young women plan a stunt. As when the Germans advertised that "simple German soldiers, respectable, decent and quiet," would be glad to meet young Frenchwomen for Sunday dancing at a Montparnasse haunt famous for its artistic associations. More than a dozen midinettes donned the gladdest attire and took the chief tables round the floor-space. But dance? "Sorry, these wooden shoes hurt so!" The simple, decent Nazi faces falling their longest when the young women presently began dancing among themselves. And so it went on until closing-time—10 p.m. Everything now has to close at 10 p.m., which has put forward the hour of the evening meal to six o'clock.

A guiding notion is to pull the Boches' legs as adeptly as is consonant with personal safety, and one celebrity, notorious for his friendliness with the Germans, is constantly leaving the latter vaguely aware that something hasn't been quite right at this or that social function. Even the traffic police enter into the spirit by displaying a nonchalant slow-action.

Formerly the young women had counterparts in the "Tagadas," young men in reserved occupations, but mostly students, who affected the most eccentric styles in dress. But the press-gangs have done their job thoroughly and now the female of the species must carry on mainly alone. One of their recent victories was with hair styles, which came to be so extravagant that the German radio remonstrated. It wasn't in keeping with the hard, tragic times, and was "too English."

A sure win is to talk French with a blatant English accent in cafés and other places crowded with Germans.

In public, young women are remote under the German gaze, and when addressed, know nothing, not even the name of the street they chance to be in; or else they send "*Ces Messieurs*" on wild-goose chases. They stare out of countenance Germans who offer their seats or their priority places in queues. No doubt this is what caused Göring's paper to complain of "the frequently ambiguous behaviour of the French towards us." Other pieces of ambiguity are snores in cinemas when the propaganda gets too trowel-fed; wise-cracking by chansonniers, which Gestapo linguists fail to "get"; marking the backs of Germans with the V-sign in the sardine-packed Underground; and when Germans are in the vicinity, talking at them.

The best at this are the older women of the concierge type. Usually they are knitting, and they cause all Germans within hearing to go red with discomfiture. When queued up, these housewives hurl the most ribald nicknames at any Germans in sight, police, Wehrmacht and civilians. (Revolting to think there are 200,000 Germans in Paris. They live chiefly in the area bounded by the Seine Quays, Montparnasse, the Champ de Mars and the Boulevard Raspail.) These women knitters are as tough as the notorious tricoteuses who sat knitting round the guillotine during the Terror.

Passing to *la vie Parisienne* and its support, it is, of course, true that a deal of traitorous scum lives gildedly and recklessly. But the majority who patronise theatres and music-halls, the races, recitals and art shows, do so in order to keep green an elegant, cultural and sprightly tradition which not even Hitler's Boches shall break down.

The open conspiracy has notable scope in the Rue de la Paix and at the Comédie Française. There are couturiers who somehow cannot resist the urge to create styles at variance with the German women's plump and yielding physique. Other styles are built on historic dresses having associations with victories over Germany, but the Fraus do not discover that until long after they've paid. One or two houses have sent forth their German clientèles attired in Edwardian throw-backs recalling the Entente.

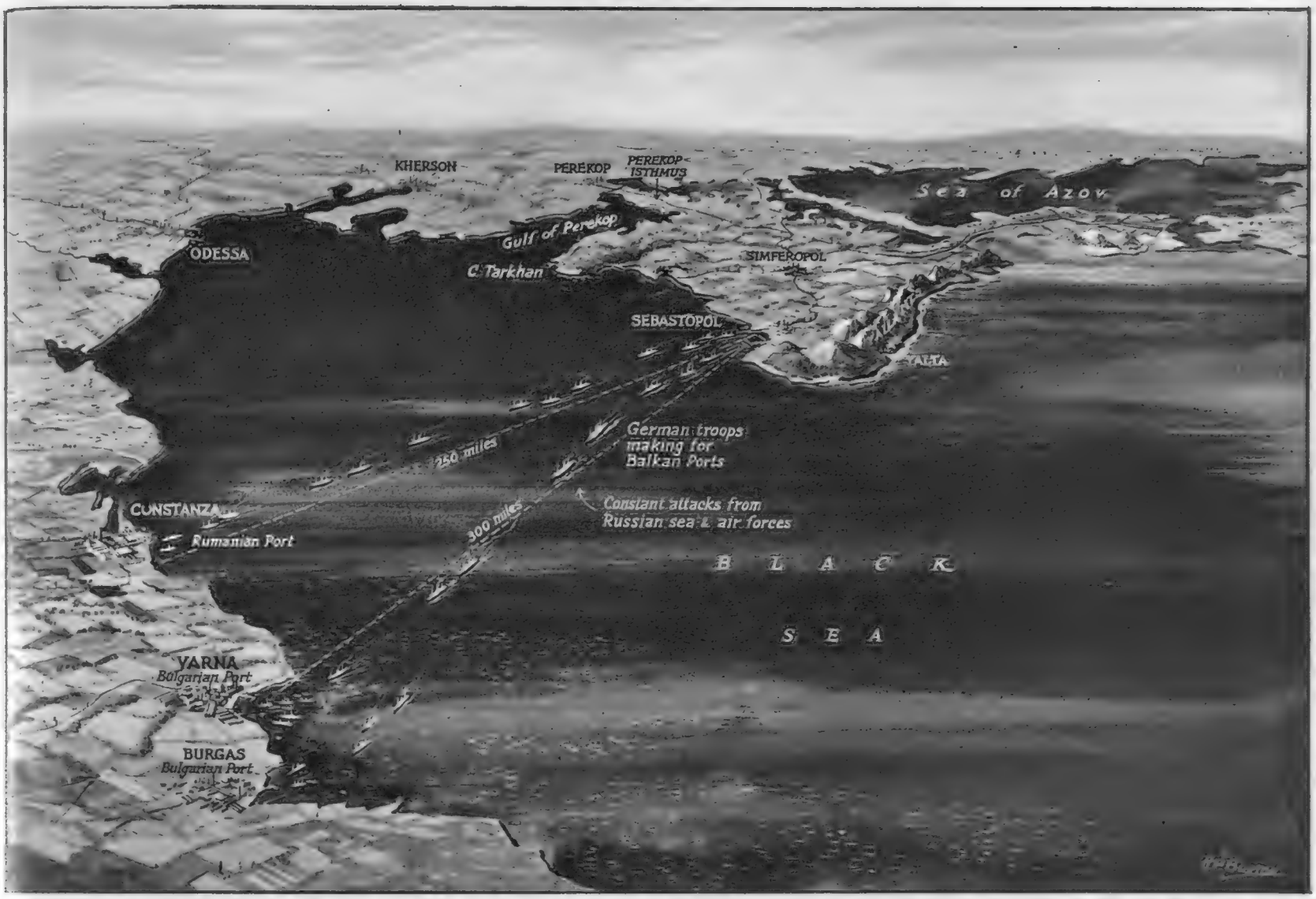
At the Comédie, *Hamlet, Romeo and Juliet.* At the Odéon, *Lear.* At Baty's, *Macbeth.* At the Mathurins, *Othello.* Shakespeare, Shakespeare. How come? A Synge vogue, too.

Window-dressers show up well in the conspiracy. All the elegance still possessed goes into display windows, although it is known that no true French can be buyers. But these displays are sustaining reminders. Not long ago, the Germans ordered them from view, as unbefitting. Promptly, steel shutters were half-closed and bare cloth showed in the window halves on view. Whereupon, bereft of their window-shopping, the Wehrmacht and its uniformed women on leave objected and back went all the elegance into the windows. Another little victory for the Parisians.

HOW FRENCH TOWNSFOLK DEFIED THE NAZIS ON NOVEMBER 11: This picture was received in "The Sphere" office only a few days ago. In the town of Bourg-en-Bresse, in spite of German patrols and Vichy police, patriots managed to erect this bust of "La Republique" on the pedestal of a statue taken down for use as scrap metal. The whole population of the town filed past it on Armistice morning

Painting, music and writing take their fitting places in the conspiracy. Prominent painters show regularly, and when the buying is for Germany they reflect—perhaps a trifle optimistically—that their works will be restored to France in the forefront of German loot. When there has been a surfeit of Wagner and Beethoven, recitals are organised of contemporary French music from Jannequin to Poulenc. And things which may not be put outright in print are clothed in allegory and verse, and conveyed by historical parallels. Louis Gillet, the old "Immortal" who died of want in the Jura rather than write collaborating stuff as too many "Immortals" have done, originated this camouflage writing, which came to occupy much of the "feature" side of newspapers.

"Make do" and confound the Boches as a matter of honour is part of the gay-grim conspiracy. It extends from wearing paper underclothing to minding the children and the sick in one's street block. Very many Parisians grow vegetables and keep rabbits in the centre of the city. They even keep roosters until the din necessitates a carving. While the concoctions of sauces and spices designed to make such things as mangolds eatable would make Brillat-Savarin bring hand to mouth.



THE FLIGHT FROM SEBASTOPOL TO THE BALKAN PORTS ON THE BLACK SEA BEFORE THE FALL OF THE GREAT CRIMEAN FORTRESS ON MAY 9. A stream of craft of all descriptions attempted to take the fleeing Germans to Burgas, Varna and Constanza: some got through, others were caught and sunk by the Russian Black Sea Fleet and by Russian aircraft—*Drawing by H. P. Burton*

BRITAIN SENDS MOBILE POWER STATIONS TO THE U.S.S.R. A 2,500-kw. Boiler Unit, weighing 80 tons, being lifted aboard a ship for Russia: To enable the Russians to resume public utility services and restart factories as quickly as possible, after the Germans have been driven out of their cities and towns, British experts have developed remarkable power units. They are complete power stations on wheels. Boilers burning either coal or oil, turbines and generators, are mounted on railway trucks to follow closely in the wake of advancing Russian troops. Each unit has a capacity of 5,000 kilowatts. This is sufficient to provide essential services, such as light and heat, over a wide area and enable small factories to start operating again

THE FALL OF SEBASTOPOL

Which was Captured by the Russians on May 9

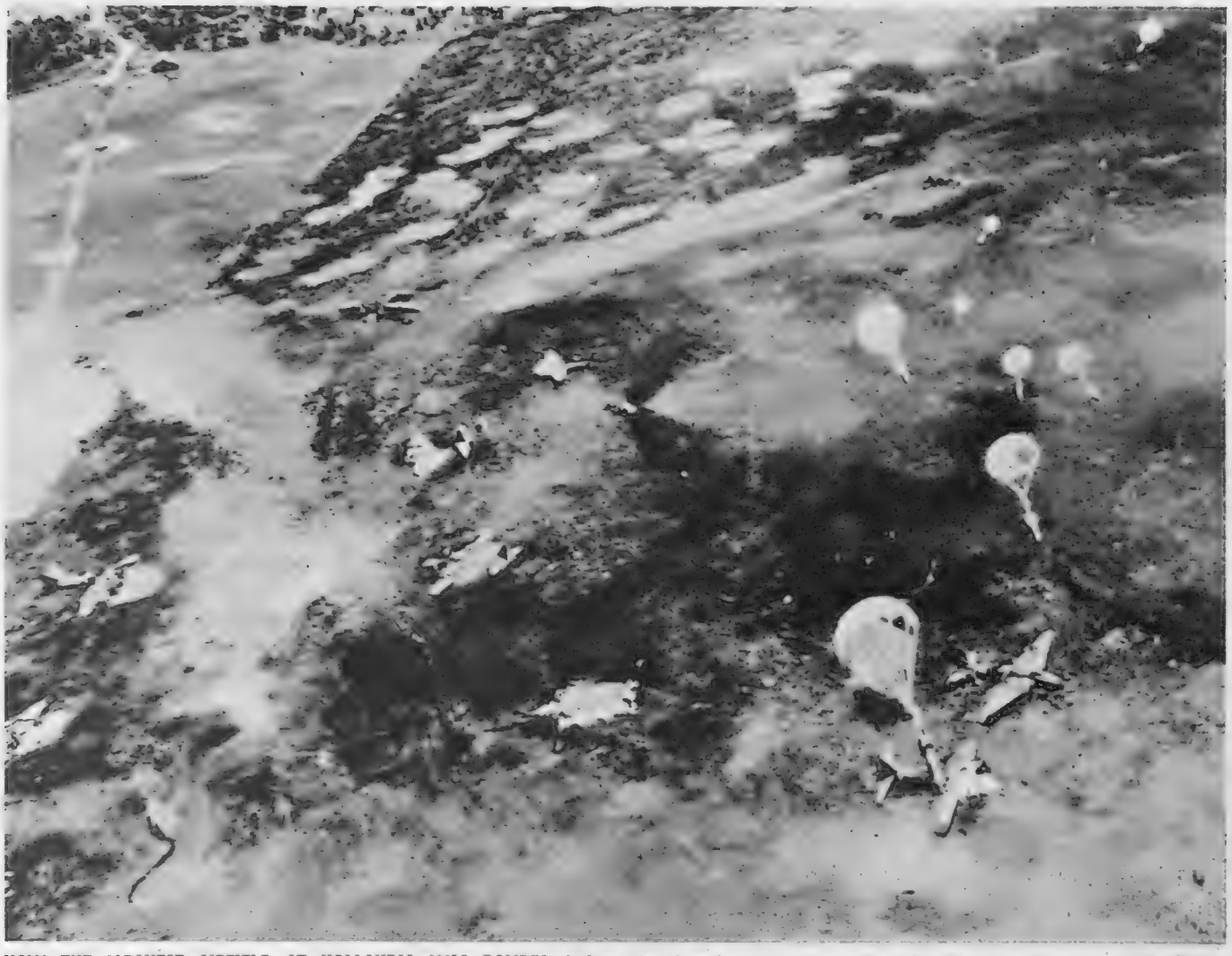
Ever since the fall of Odessa, Germany had been trying to evacuate the large forces retained in the Crimea. From about the middle of March they began taking off a thousand a night by planes, keeping this up for nearly four weeks. The Crimea was expected to hold out till an orderly evacuation of men and material had been successfully performed, but the Russian onslaught was too rapid and fierce for the defence of the isthmus, which crumbled and broke. The offensive started on May 10, and by the 17th no fewer than 37,000 prisoners had been taken. There was no time for demolition or removal of goods and war material.

It is said that there were 75,000 German and Rumanian troops in the Crimea remaining, after 30,000 had been evacuated by air. Subtracting the number of prisoners lost to the Russians, this left about 38,000 men to defend the south-western tip around Sebastopol. There were many defensive lines, but the Russians came on irresistibly, capturing Simferopol, Theodosia and Yalta, driving the dispirited German Army back upon the roads to Sebastopol. They were soon in a position to keep up a persistent shelling of the city from heavy guns, and a continual bombing from the air.

Frantic efforts were made to get the troops away. Fast ships could reach Rumania under cover of night and a fleet of evacuation boats had been collected at Galatz and Constanza. Power barges were discovered in the inlets around the Sebastopol coast, which were promptly attacked by Russian planes and submarines. The splendid harbour of Sebastopol is filled with the wrecks of transport ships. Outside, the Black Sea Fleet awaited such vessels as escaped the ruthless bombing of the Russian planes. Some of the ships doubtless reached safety, but the toll was very heavy.

SOVIET TROOPS IN THE RUMANIAN TOWN OF BOTOSANI: Tanks and motor-cyclists are serenaded by musicians and greeted by the Rumanian populace

UNDER THE FIRE OF RUMANIAN ARTILLERY, Soviet sappers built numerous temporary bridges across the River Pruth for the invasion of Rumania



HOW THE JAPANESE AIRFIELD AT HOLLANDIA WAS BOMBED before the American and Australian landings were made on April 22. One of General Kenny's low-flying planes made this dramatic picture, showing parachute "block-busters" floating down to spread death and destruction on Cyclops airfield at the Japanese air base on the north coast of New Guinea. In this attack, 288 Jap planes were blasted out of commission

The WAR Against the JAPS in the PACIFIC

The Attacks on Hollandia, Truk and the Palau Islands

On Saturday, April 22, a spectacular development in the long-range plan designed to free New Guinea from Japanese control occurred, when General MacArthur seized the Humboldt Bay area on the north coast of the island and occupied the great enemy base of Hollandia. At this point there are three airfields from which Jap aircraft have for long operated: all three are now in Allied hands and adapted for use against their former holders.

Under cover of naval and air bombardment, Allied forces landed at Aitape, Hollandia (Dutch New Guinea) and Tanahmera Bay (30 miles north of Hollandia), after neutralising attacks had been made by land-based air forces and by aeroplanes from carriers attached to the Pacific Fleet. The official report states that the result was a complete surprise, and that the initial landings were effected with slight losses.

The biggest assembly of air, sea and land forces yet seen in the south-west Pacific converged on Hollandia and Aitape, while far off-shore a formidable aircraft-carrier force kept watch for possible enemy interference from the sea. From the carriers' decks relays of naval aircraft flew over the landing beaches.

AMERICAN BOMBS SCORE HITS ON JAPANESE INSTALLATIONS AT HOLLANDIA. Surface craft in the harbour were also hit, and many of them were knocked out before the landings took place (*see notes at right above*)

DURING THE ATTACK ON TRUK: This photograph was taken on February 16, when the great Jap naval base in the Carolines was being attacked by the American Fleet and Air Force. It shows the results of a direct torpedo hit. The wakes of two torpedoes show in the picture; one of them made an erratic run, the other a straight run to register a direct hit on its target: this was a tanker, which burned furiously and then sank within a few minutes. The smoke in the background is from Eten Island

A VIVID IMPRESSION OF AMERICAN NAVAL MIGHT IN THE PACIFIC: A fleet concentration in the Marshall Islands of U.S. naval vessels. Some of these helped to conquer the group of islands formerly held by the Japs. To-day, the number of American ships of all kinds in the Pacific is very great indeed, and more are pouring from U.S. shipyards each week that passes

PENETRATING TO THE HEART OF THE JAP DEFENCE ZONE. The enemy fortress of Palau, within 600 miles of the Philippines, is attacked by a strong force of the U.S. Pacific Fleet: On March 29-30 strong forces (stated in Pearl Harbour to include battleships and aircraft-carriers, but not transports) carried out heavy attacks on the Jap-held Palau Islands—by far the deepest penetration yet made into enemy territory in the Pacific. These islands lie 480 miles east of Mindanao, in the Philippines, 1,200 miles west of Truk and 2,100 miles west of the Marshall Islands: they contain a large anchorage protected by coral-reefs, suspected of being an important stronghold of the Japanese fleet. Not only was the Palau group attacked, but also Yap and Woleai Islands. A tremendous amount of damage was inflicted on the enemy—a total of twenty-four naval and other vessels were sunk and fifteen others severely damaged, and over 200 aircraft were destroyed at Palau alone: other ships and aircraft were hit at Yap and Woleai. No American vessels were lost, but aircraft losses were twenty-five combat planes

THE JAPANESE AIRSTRIP ON WOLEAI ISLAND, in the Japanese-held Palau Islands, is rendered useless by dive-bombers from American carriers during their heavy attack on March 29-30

THE PALAU ISLANDS UNDER ATTACK by carrier-based dive-bombers of the U.S. Pacific Fleet. Columns of smoke rising from the bombs which wrecked the Jap installations

THE GREAT JAPANESE NAVAL BASE AT TRUK: One of the clearest views yet obtained of the great lagoon which can give shelter to the largest fleet. This picture was taken from an American naval plane as it went in to the attack during a recent blow from the air at this vital, Jap-held spot. The principal American attack was made on February 16, but since then a number of other raids have been carried out by carrier-based aircraft, and great damage must have been caused. In the foreground of this picture is Eten Island, on which is the principal airstrip: at the top is Dublo Island, where the principal Jap installations have been made on all its sides. Jap ships ride at anchor and enemy planes are scattered about beside the airfield on Eten Island. Low-hanging clouds were drifting above the great lagoon as the picture was taken

ATTACKING JAPANESE "HOME" TERRITORY

The Kuriles Bombarded by the American Fleet and Air Force

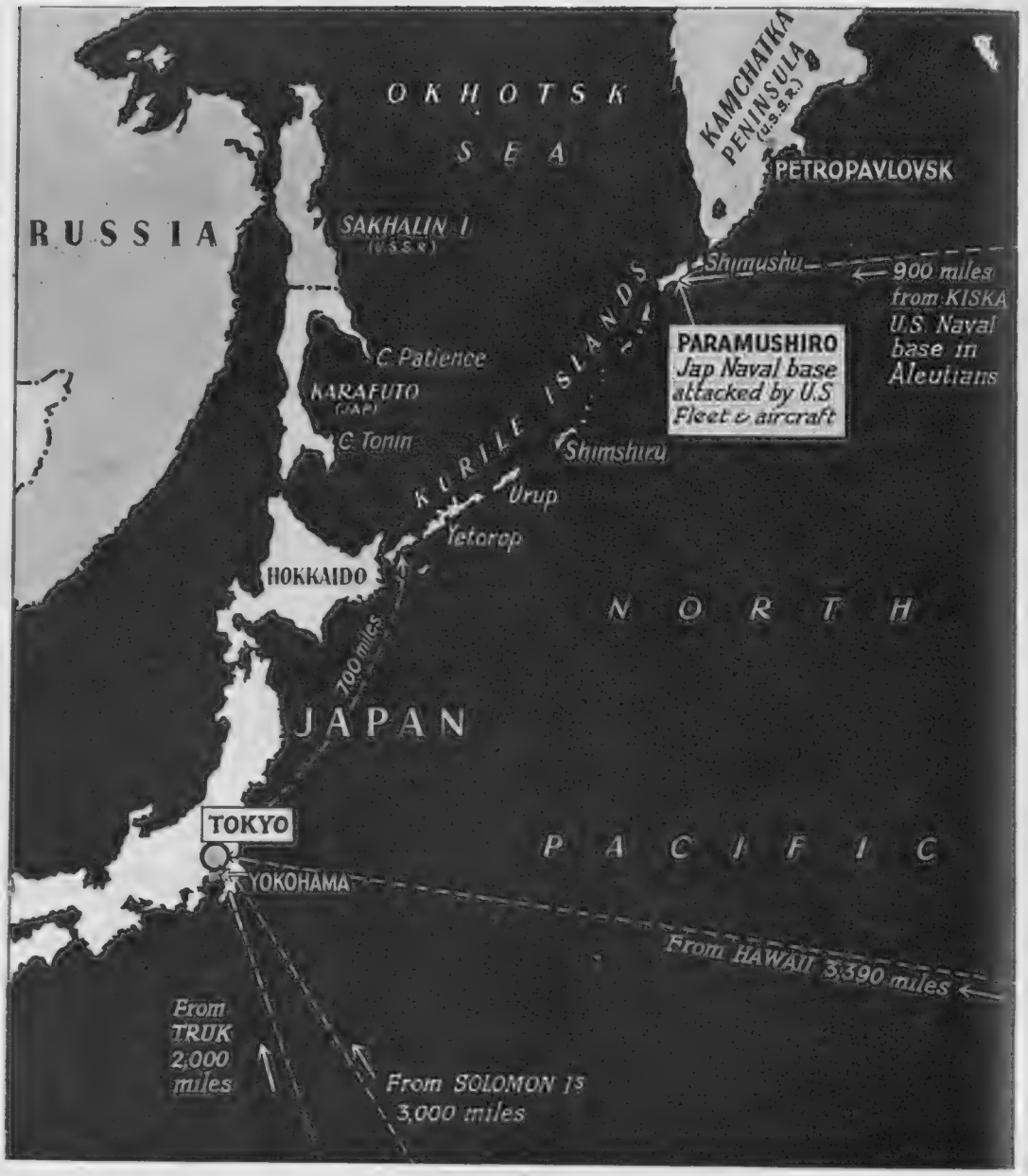
The Kurile Islands stretch from Hokkaido (or Yesso), one of the islands of the main Japanese groups, in a long curving line northwards to the promontory of Kamchatka. They are all volcanic, some of them still active, and they suffer from constant earthquakes. They came into the war news when they were raided by the U.S. naval bombers at the end of last January. Paramushiro, the most northerly island of the group, has been used by the Japanese as their principal naval air base for the North Pacific. After being forced out of the Aleutian Islands, the Japanese are now suffering retaliation from American bombers, whose base is at Dutch Harbour, in the Aleutians, some 1,600 miles away.

A short but sharp naval attack was made on Paramushiro on February 4, when destroyers and heavier vessels under Admiral Baker of the U.S. Navy steamed in as close as five miles, and pounded the harbour and land installations. It was a bright moonlight night at 2 a.m. when the warships dropped star-shells over the dark harbour and then began heavy shelling. The enemy, taken by surprise, fired wildly, not apparently realising they were being attacked from the sea, but thinking a landing was taking place and so firing all along the beaches. The fleet, after seeing fires and hearing explosions, sailed along the south and east coasts attacking any possible positions, before steaming off to their base. Fifteen minutes later naval aircraft appeared and bombed the targets, already damaged by the warships, and then bombed the small island of Shimushu, which is a little to the north of Paramushiro.

More bombing attacks have taken place during the past two months, proving to the enemy that his own home waters are getting within the danger-zone—a matter of grave concern to the Japanese High Command.

Below—

A PICTURE TAKEN AT NIGHT ABOVE THE JAP BASE OF PARAMUSHIRO : This picture was taken by an American naval reconnaissance plane on the night of February 20. It shows the snow-covered air-strip and revetments, warehouses on the island, and the camp area huddled close round the "docks" and jetties. Note the shadow from the hill which rises in the centre of the picture



"THE SHETLANDS OF JAPAN," THE STRING OF KURILE ISLANDS, stretching from the Japanese mainland to Kamchatka. The principal base in the islands, Paramushiro, was attacked by the American Fleet on February 4, and has since been heavily bombed from the air —twelve times during the month of April alone

The Kuriles form part of the province of Hokkaido and are thus part of Japan's "home" territory. There are twenty-nine islands in the string, which stretch for 150 miles to the north-east of the mainland. The islands are mostly hilly, with steep cliff coasts; in the north, only the months of August and September are free from snow. The fisheries are of great value to the Japs, but the population is comparatively small, being in the neighbourhood of 5,000. The attack carried out by the American Navy was the first in which Japan's "home territory" was directly assaulted

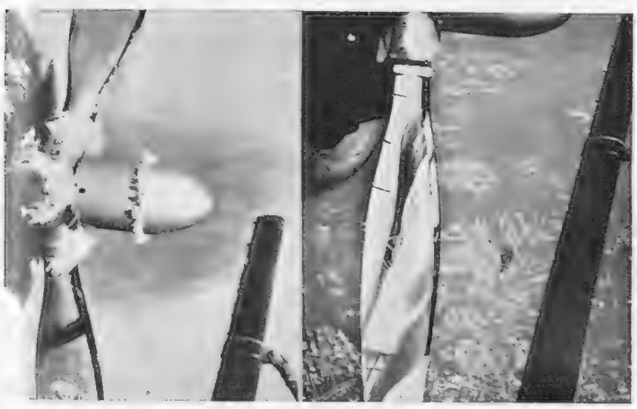
DURING THE ATTACK ON THE KURILES IN FEBRUARY LAST : The ice-coating on one of the American warships which raided the Jap naval base at Paramushiro in the northern Kuriles. The cold in these regions is very intense during the month of February. The Task Force which carried out the raid damaged Jap shore installations and an enemy merchant vessel; but none of the American warships taking part in the attack were hit

NEW FLYING PICTURES

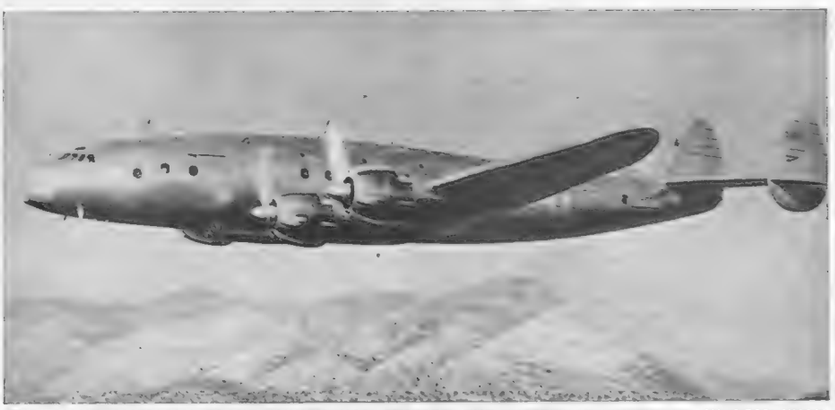
From Different Quarters of the Globe, Showing the Latest Developments in the Air

***On left*—On the night of May 6-7** Lancasters of R.A.F. Bomber Command attacked German ammunition dumps at Augbigne-Racan (about 25 miles north-west of Tours) and at Sable-sur-Sarthe (about 30 miles south-west of Le Mans). "The objectives were clearly identified and the bombing was well concentrated," said the official preliminary report What actually happened at one of these two places—Sable-sur-Sarthe—is shown in more detail on the left The attack was filmed by two cameramen of the R.A.F. Film Unit, who took the picture reproduced here Terrific explosions took place all the time, and debris from the dump was thrown high into the air. Smoke rising to about 2,000 ft. completely obliterated one side of the target. The blaze of the burning dump could be seen as the reconnaissance aircraft left the French coast

R.A.F. LANCASTERS ATTACK THE AMMUNITION DUMP AT SABLE-SUR-SARTHE, IN FRANCE: The scene as smoke and debris from the burning dump rose high into the air (See *note at right*)



SOLVING THE PROBLEM OF ICING-UP IN THE AIR: One of the greatest hazards in aviation is ice—particularly when it becomes encrusted on the propeller-blades. The Curtiss-Wright Corporation is now tackling this problem; the two pictures above were taken during recent tests by their engineers. On the left, at a height of 20,000 ft., water is being sprayed on to the propeller-blades from an outrigger: on the right, the result of the treatment is shown, with the blades quite free. When ice forms during the tests, a de-icing solution is squirted from the shank of the blade, the propeller is feathered and photographs are taken to determine the effect of the solution on the ice



THE GIANT AMERICAN PLANE WHICH HAS CROSSED THE AMERICAN CONTINENT IN LESS THAN SEVEN HOURS: Hurtling across the United States at an average speed of more than 350 miles an hour, the giant Lockheed *Constellation*, the world's largest transport plane, has broken the trans-Continental record by 32 minutes: the crossing was made in 6 hours, 58 minutes, and the pilots were Howard Hughes and Jack Frye (President of T.W.A.). The *Constellation* carried seventeen persons and there was room in its cabin for forty more: it averaged 355 m.p.h for the 2,485-miles trip. The U.S. Army is now taking over the air liner for war transport duties

THE HAVOC NOW HAS NINE GUNS FOR ATTACK: A power-turret which houses two .50-calibre machine-guns is the latest addition to the fire-power of the Havoc, according to information just released by the U.S. Army concerning this versatile aircraft. It now has nine machine-guns—six in the nose, two in the turret and one in the belly

TAKING SUPPLIES INTO CHINA BY AIR: Flying over "The Hump." This is a mountainous ridge in the Himalayas which lies on the military air route between India and China, and where the peaks rise to a height of 14,000 ft. The C-46 transport planes carrying the supplies have to climb over this "Hump"; fog and mist and cloud are frequently encountered. But a quantity of material has already been transported since the closing of the Burma Road

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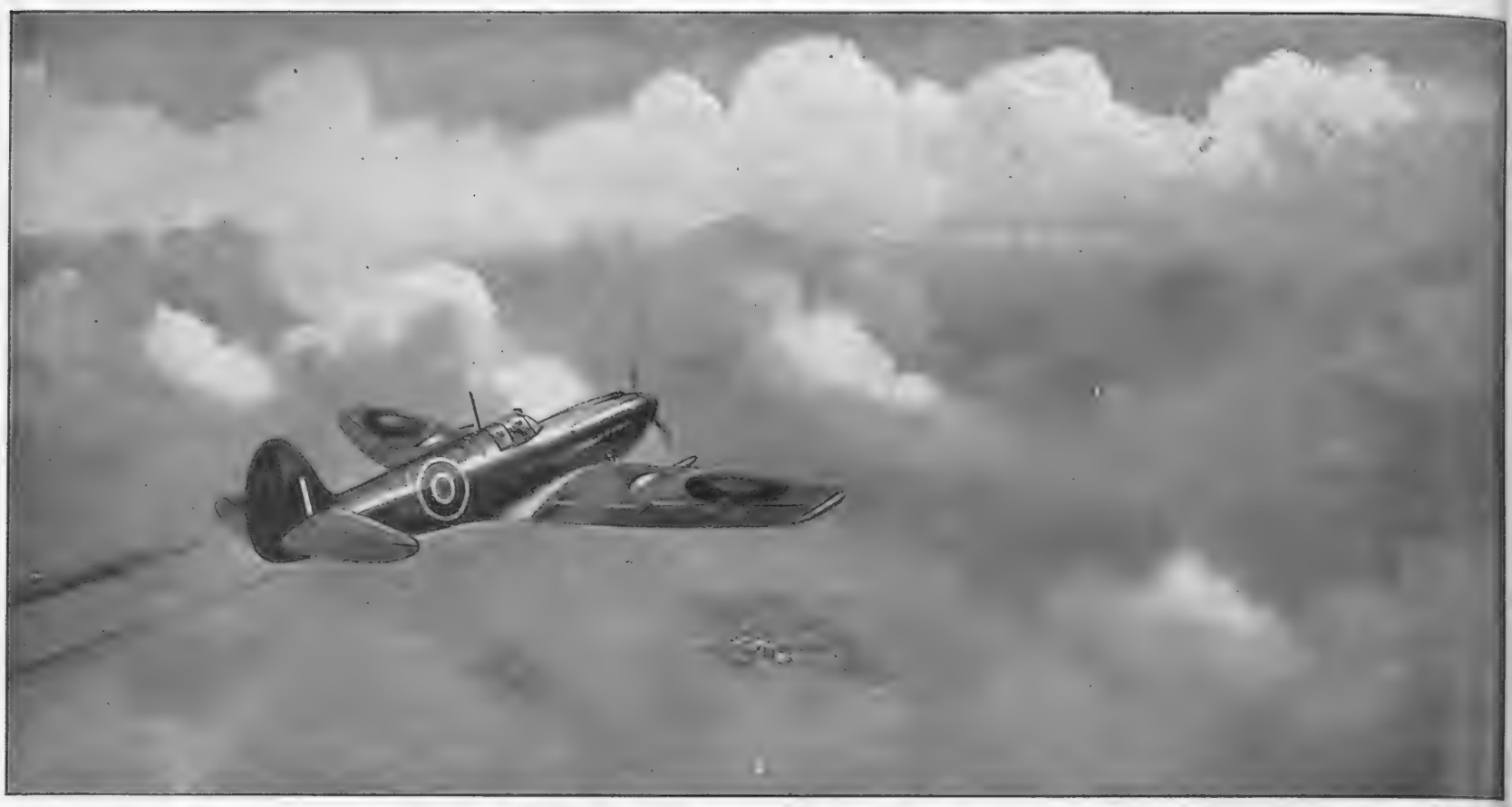


"WHERE AM I?"—a problem for the fighter pilot who has to navigate himself as well as fight. On a cloudy day he only catches sight of the ground at odd moments—*Drawing by Roland Davies*

INCIDENTS from the WAR by AIR

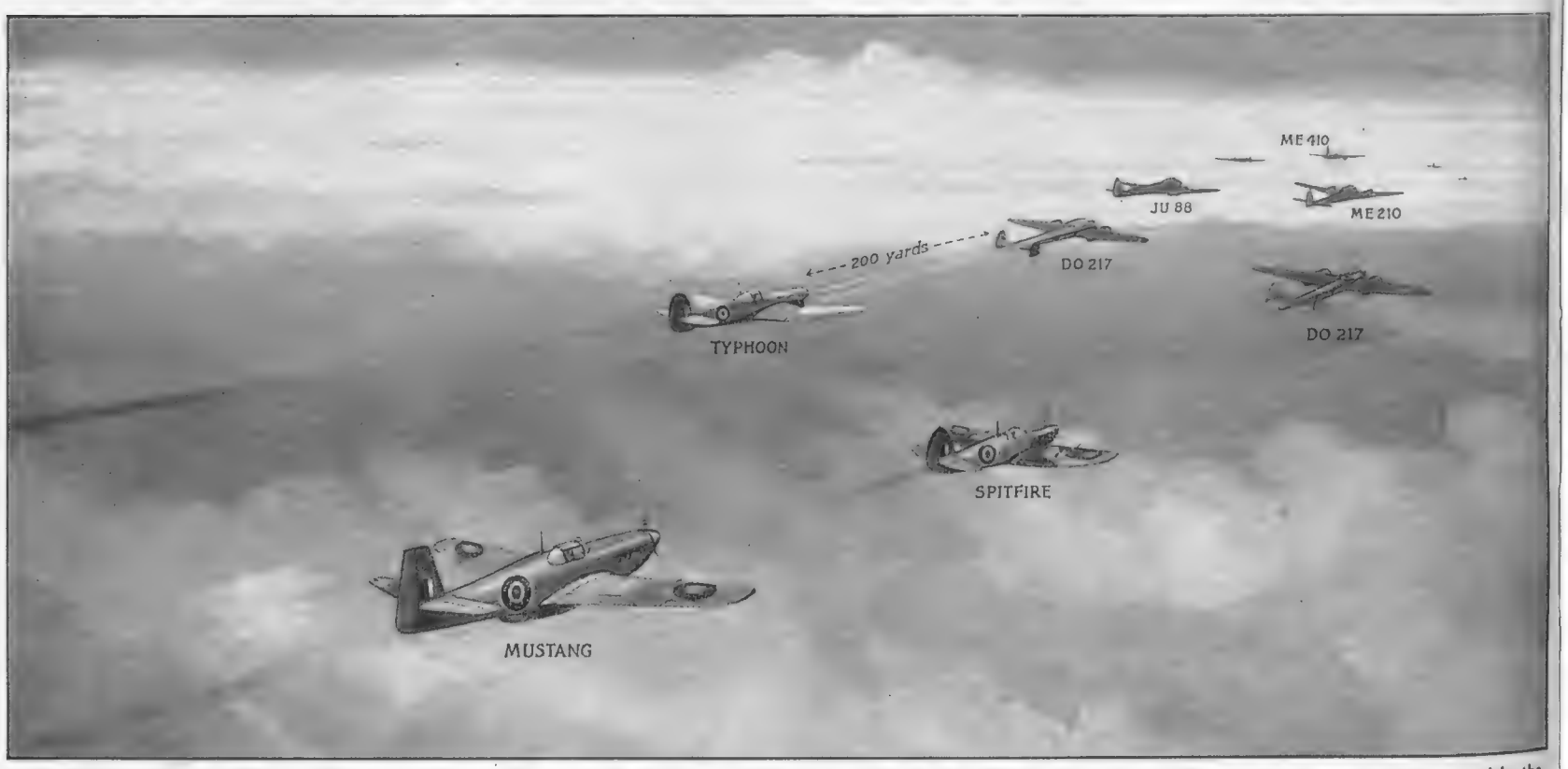
—Depicted by Sphere Artists

Air navigation in wartime presents a peculiar paradox—it is theoretically much simpler than sea navigation, in practice much more difficult due to the conditions under which the airman works. No single-handed aviator bothers with astro-navigation—he flies by so-called "dead reckoning." In other words, he flies by the map and estimates his position by the simple arithmetical process of so many minutes' flight at such and such a speed on such and such a course from his point of departure. A list of landmarks en route, with the estimated time of arrival at each, provides the necessary "fixes" by which the external factors which upset dead reckoning (mainly due to wind) can be checked from time to time. In addition, he has his radio, by which he can get his bearings calculated by friendly ground stations, and there are also the various "approach" and "beam" systems which give him guidance in the vicinity of friendly territory.

But, in the main, the daylight short-to-medium-distance flight, even when made by multi-crewed aircraft, is navigated with reference only to map, compass, clock and airspeed indicator. The snags crop up mainly when the pilot runs into low cloud, and so cannot spot a ground mark to check his dead reckoning, or when in the heat of the job he finds that he has got over territory which seems to bear no resemblance to the map. It is true that a pilot over France has only to fly north-east or north-west long enough to be reasonably sure of sighting home. But the Channel varies in width from 21 miles to close on 150 miles, which is an important factor when petrol is running low.

The long-distance night bomber, on the other hand, uses a combination of three methods—dead reckoning, astro-navigation, and radio. His "astro-navigation" is a simplified and speeded-up version of the sea-navigator's technique. The astro-navigator's main tools are the twenty-three principal stars (besides Polaris), whose names and position in the heavens he knows by heart, the *Air Almanac* (an Air Ministry publication which gives in special form the astronomical data relating to these stars), his bubble sextant and slide-rule. A shot of Polaris gives the airman his latitude, and a "running fix"—that is, a shot of two other stars with a time interval between—gives the aircraft's position with as much accuracy as is feasible. To help the airman, two other aids have been introduced—the "Astrograph," which is still a more-or-less secret optical star-projection device, and new methods of radio-navigation.

This last is more secret still, but a Swiss aviation journal stated last autumn that British night bombers were now given their bearings, when over Europe, by signals from three British radio stations with which the Germans had not so far been able to interfere.

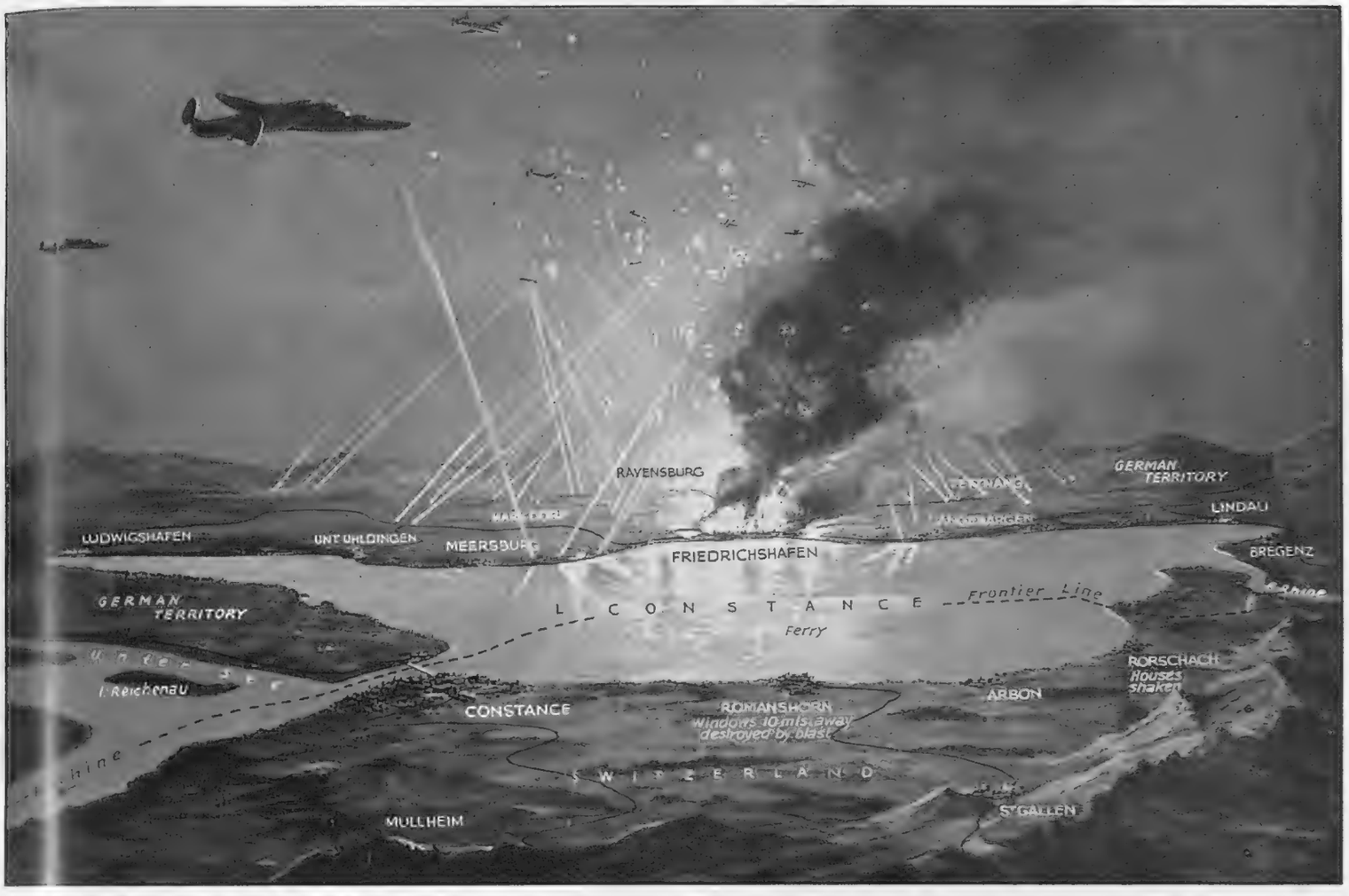


WHY SPEED IS VITAL IN THE AIR: An aerial combat to-day is no longer the tight-action "dog-fight" of the last war. Speed is an essential factor, with the combat usually ending with an attack from astern—*Drawing by Roland Davies*

No detail of a fighter plane's performance is guarded more closely than its speed. This is a vital weapon in the fighter's armoury—a few extra miles an hour coaxed on to the top speed of a plane, and a precious fraction of a second clipped off the time taken to perform a certain few manœuvres (such as a 90-degree bank), make all the difference between the fighter plane which is a real killer and the machine which has regretfully to be relegated to secondary duties.

Consider a fighter trying to bring down a fast German day raider such as a Do. 217 or a Ju. 288—either of these is capable of over 300 m.p.h. when making its get-away. At this rate, the bomber is streaking through space at 440 *ft. a second.* Obviously, a broadside-on, or full-deflection, attack on a machine travelling at this rate is a hopeless proposition—the attacks must be made preferably from dead astern, or at most at a small angle on either side—what a sailor would call "the quarter." Since, moreover, modern fighter tactics stress the value of getting close in for the kill (the chances of downing a raider from 200 yards are nearly ten times as good as they are at 400 yards), it becomes obvious that only the fastest fighters now stand much chance.

The margin of speed possessed by even the best single-engine fighters over the best fast bombers is now surprisingly small.



THE BIG AIR ATTACK ON FRIEDRICHSHAFEN as seen by neutral Swiss observers across Lake Constance. The giant Zeppelin hangars have now disappeared; the air pressure from the falling bombs broke windows on the Swiss side twelve miles away—*Drawing by E. G. Lambert*

One of the most spectacular of the recent night-bombing raids on enemy targets in South-Western Germany was that upon Friedrichshafen, once of world-wide notoriety as the home of the giant Zeppelin fleet, the pride of the "Rolossal" school of Germans. The Zeppelin passed from usefulness with the coming of the swift aeroplane, but the sheds, the vast hangars, remained to reflect their huge bulk on the waters of Lake Constance—or Bodensee, as German atlases have it. Half the lake is German and half Swiss. The onslaught of heavy bombers on this lakeside centre of a considerable amount of enemy war effort can be witnessed by thousands of neutral spectators, who can see the pyrotechnics of the attack from grandstands on the Swiss shores of the lake and from the town of Constance itself, where the Rhine flows westwards towards Schaffhausen. The Swiss were able to see, on the German side, the blazing searchlights and the thousands of shell-bursts twinkling in the sky as the Allied attack developed. The whole universe seemed to shake as the block-busters hurtled down

THE ESCAPE OF ALLIED AIR CREWS AFTER FORCED LANDINGS IN ENEMY TERRITORY: Men from an American Flying Fortress making off across the Danish countryside towards the shore opposite Sweden and ultimately to freedom—*Drawing by Roland Davies*

Ten members of the crew of a Flying Fortress which made a forced landing in German-occupied Denmark have escaped to the safety of Sweden—in four days. With one of their number wounded, they crawled on hands and knees through ditches and hid in the woods, dodging Germans all the way. "As we got out of our plane," said one of the crew, describing their adventures, "Danish civilians came up. First two farm boys, then others. They couldn't understand English; they just pointed in the direction of Sweden. Then a well-dressed man who claimed he was a Canadian, came along. 'Beat it fast if you want to get out,' he told us. Then a Dane struck a match on his trouser-leg and set fire to our plane, saying, 'Your machine caught fire accidentally.' We headed for a wood and stayed there the rest of the day. At night two of us lay on either side of our wounded man to keep him warm. Living partly on our 'escape rations,' we moved across country by night only. Once some German soldiers passed within thirty feet of us." Exact details of their four-day flight to Sweden may not be given yet

NIGHT ATTACK ON THE TANK DEPOT AT MAILLY IN FRANCE: An unusual photograph taken on the night of May 4-5, showing one of the attacking Lancasters flying just above the towering columns of smoke as the bombs went home

Aircraft of Bomber Command in strong force attacked a large depot of tanks and lorries at Mailly, 40 miles south-east of Rheims, on the night of May 4-5. The Germans reacted violently to the attack on what was evidently an important military objective and sent up fighters in great numbers. A pitched battle was fought over the target soon after the attack had begun, but the bombing went on with unfaltering precision The marking was deliberate and exact, and the bombing was well concentrated round the target indicators. A pall of smoke soon covered the whole area of the depot and violent explosions were seen through the smoke, with huge flames bursting up. It is stated that 1,500 tons of high explosive and incendiary bombs were dropped on this occasion. Two of the pictures reproduced here show the dramatic and effective results of the attack.

The PRE-INVASION BOMBING of E

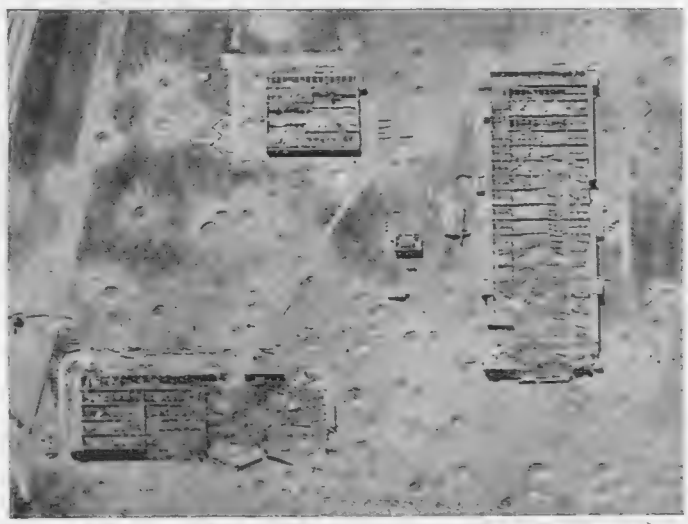
THIS IS HOW THE R.A.F. WIPED OUT THE NAZI TANK AND LORRY DEPOT AT MAILLY on the night of May 4-5. Hardly a building remains untouched by the great shower of bombs. (The depot *before* the attack is shown in the picture below, on left)

THE MAILLY DEPOT BEFORE THE ATTACK, with scores of buildings neatly arranged. Compare this picture with the larger one reproduced above, taken after the raid

EUROPE: New and Striking Photographs of the Allied Precision Methods over Continental Targets

SMASHING THE NAZI COMMUNICATIONS SYSTEM IN FRANCE: The damage to the marshalling yards at Tours after the attack carried out by aircraft of Bomber Command on April 10-11

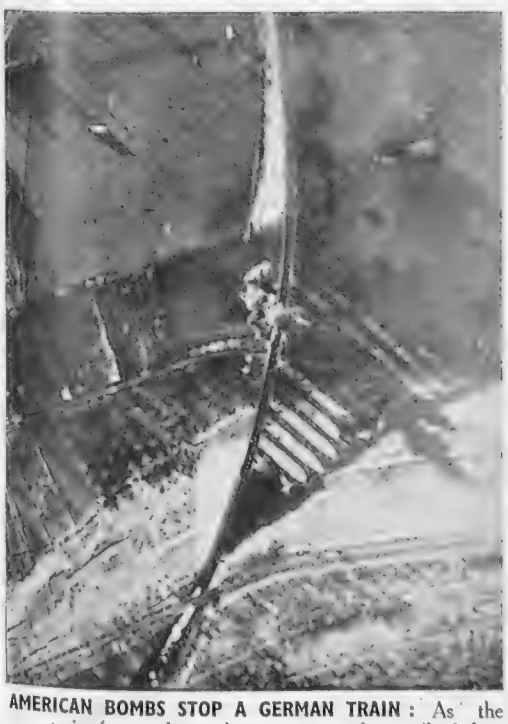
This is the St. Pierre des Corps Marshalling yard at Tours: the picture was taken after an attack on the night of April 10-11. The heavy concentrations of bombs have caused devastation and chaos throughout the whole target area. Besides all the railway facilities which have been heavily damaged, a road bridge has received three hits, and another has also been badly strafed. There is hardly a square yard which has not received its direct hit



THE AIRCRAFT ASSEMBLY PLANT AT TOULOUSE after the attack by Bomber Command on the night of May 1-2

On right—

When aircraft of the R.A.F. attacked the S.N.C.A.S.E. Aircraft Assembly Plant and the Pouderie National (or Explosive Works) at Toulouse on the night of May 1-2, the entire factory—excepting the boiler-plant—was severely damaged. The three main buildings—assembly plant, testing shop and components store—were gutted and completely destroyed



AMERICAN BOMBS STOP A GERMAN TRAIN: As the train (centre bottom) steams towards a rail viaduct near Poix, in North-Western France, a 500-lb. bomb from an American Liberator smashes the railway bridge with a direct hit. The rail line was the target of 108 American bombs during a recent all-day pounding of German military objectives

ANOTHER RAIL CENTRE IN FRANCE—ALREADY MUCH-BOMBED—RECEIVES FURTHER ATTENTION FROM THE AMERICANS: A picture taken over Valenciennes on May 2: Over the smoking rail centre at Valenciennes, filled with burning goods wagons, is a flight of six B.26 Marauder bombers of the Ninth U.S. Air Force. They have just released their bombs on one of the most important rail junctions in Northern France. This picture was taken on May 2, during the second bombing of Valenciennes. Three separate fires may be seen amongst the railway freight-cars in the lower part of the picture: another, to the left, is in a factory building. Photograph interpretation officers say that two large warehouse buildings, a car-repair shop, many goods wagons and tracks were damaged in the two attacks

SUBMARINES AGAINST the JAPS: British Under-water Craft Operating in the Far East—Some New Pictures

WITH THE FLEET IN EASTERN WATERS: Back from a successful patrol against the Japanese, one of H.M. submarines comes alongside the depot ship at the base

Britain's submarines—ever growing in numbers and in striking power—will be an important factor in the swiftly-developing war against Japan. Already vessels of this type, operating in the Indian Ocean, have struck many vital blows along the supply lines on which Japan must depend to reap the advantages of her aggression in the Far East. Meanwhile, submarines which played a most successful part in the Mediterranean war are being refitted for the final phase of the struggle, and new submarines are being prepared for the last act in the sea war against the Axis

REFITTING FOR THE FAR EAST: A "tin-fish" being loaded into a submarine through the special hatch on deck

BRINGING A TORPEDO ALONG THE DECK of the depot ship past a huge stack of shellcases for the submarines

LOOKING DOWN INTO THE CONNING TOWER of one of the British submarines which are now being refitted for coming service against the Japs in the Far East

A DRAMATIC INCIDENT DURING THE NAVY'S ASSAULT ON THE JAPANESE BASE AT SABANG, IN SUMATRA: A BRITISH SUBMARINE SUDDENLY SURFACES NEAR A CRASHED ALLIED FIGHTER AND RESCUES ITS AMERICAN PILOT IN THE VERY FACE OF ENEMY DESTROYERS—*Drawing by Montague Dawson*

During the operations—naval and air—against the Japs at Sabang, there occurred one of those spectacular rescues which must have seemed almost unreal even to the rescued. During this initial trial of strength in April last in the Bay of Bengal, a sudden swoop was made by the Navy on the enemy fortified positions at the very northernmost tip of the biggest island of the Dutch East Indies, Sumatra. While the carrier-borne planes were making their attack, one of them crashed into the sea, in unpleasant proximity to Japanese destroyers and shore batteries. The pilot cannot have been hoping for much when, to his great astonishment, the waters parted and there foamed to the surface a British submarine. Like the crashed pilot, the submarine, too, was in imminent danger of attack by the enemy destroyers, which, however, made off when they were machine-gunned by fighters from the same group as the shot-down pilot. Surfacing under shore-battery fire is no new experience for Lieut.-Commander Collet. In July of last year he popped up in daylight in a small Italian harbour and sank an enemy schooner by shells "to save torpedoes." Last month he was mentioned in an Admiralty communiqué as one of the commanders of submarines which had recently destroyed seven enemy ships in Far Eastern waters

AN UNUSUAL SIGHT DURING PREPARATIONS TO MEET THE JAP NAVY: Four British submarines moored together alongside the depot ship at the base to be refitted. These vessels are of different classes, but all will soon be vigorously engaging the enemy in Eastern waters

THE LAST FIGHT OF THE CANADIAN DESTROYER "ATHABASKAN": "We saw the flames spreading, but she steamed on, her guns thundering, said one officer." The action in which this fine ship was lost took place very shortly after a previous battle in which a German force of destroyers had been routed by the Canadian Division—*Drawing by Wm. McDowell*

The CANADIAN NAVY

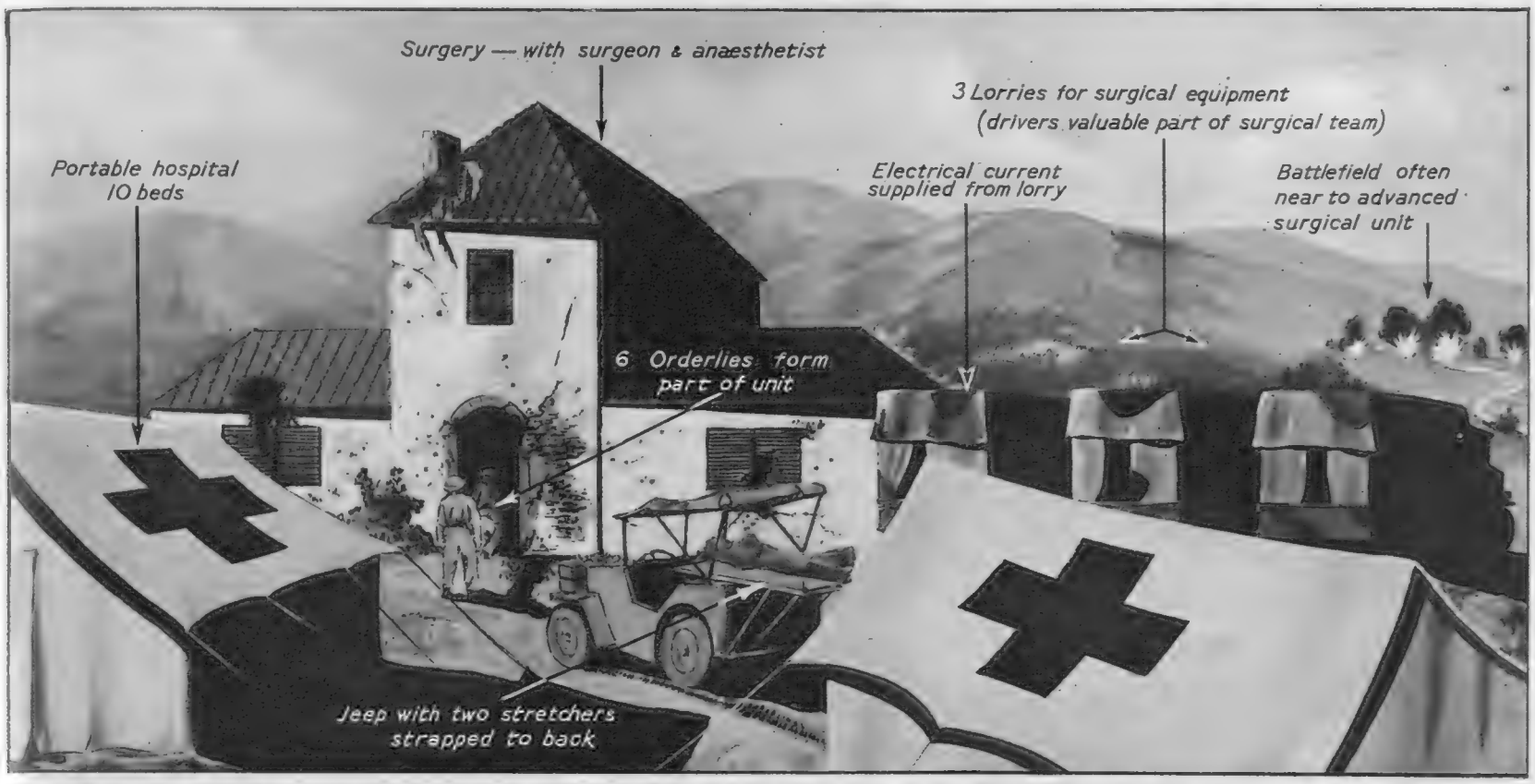
Fights Its First Engagement as a Purely Canadian Division

—Two Pictures of the Recent Channel Battle, when the German Formation was Routed

On the morning of Wednesday, April 26, a force of the Canadian Navy engaged a German naval formation and routed them, after a running fight over 50 miles which lasted for two hours. One German destroyer was sunk after being set on fire, and other ships, believed to have been hit, fled to the French coast. This was the first engagement that the Canadian Navy fought as a division.

Amongst the vessels taking part were the two destroyers *Haida* and *Athabaskan*. Three days later, on the morning of Saturday, April 29, these two warships were engaged on further operations off the French coast, when *Athabaskan* was torpedoed three miles from the land. They had discovered two enemy destroyers and suspected others to be close in the vicinity, but the Canadian warships immediately closed in to engage. As soon as *Athabaskan* was hit, flames began to envelop her superstructure: the flames spread rapidly, but she steamed on towards the enemy, her guns still thundering. She sank within a few minutes. *Haida* took a quick revenge by driving one of the enemy "Elbings" ashore on fire and damaging the other. She then went to the rescue of the *Athabaskan's* survivors, several of her crew going down the nets to help the men in the water up on board. Forty were thus saved, and another eighty-five were taken prisoners by the Germans. In all, there were some 131 survivors.

THE CANADIAN DESTROYER "HAIDA" STOPS TO PICK UP SURVIVORS FROM THE "ATHABASKAN." It will be observed that the Navy type of life-jacket has a small electric-light fixed on the shoulder to enable the wearer to be located in the water at night. The Canadian class of destroyer to which both "Athabaskan" and "Haida" belong are practically identical with the British Tribal class—*See notes above—Drawing by Wm. McDowell*



A MOBILE FIELD SURGERY IN THE ACTUAL BATTLE LINE—one of the new features of the modern treatment of war casualties. A drawing which shows how the portable hospital is conveyed to the front on three lorries, with beds for twenty cases—*Drawing by B. C. Wood*

SURGERY in the BATTLE ZONE

Giving Our Wounded in Italy the Best Possible Chances

SIXTEEN hours' hard work in the operating theatre by a single-handed surgeon, two hours clearing up, six hours for food and sleep before repeating the cycle next day—that was a normal routine in the Field Surgical Units during the peak battle-phases in North Africa and Italy. These units have been one of the principal factors in bringing down the death-rate among our wounded troops, who now have a chance of recovery nearly twice as good as in the last war.

When a man receives a serious battle-wound, his chances of living slump with every hour which elapses before he receives proper surgical treatment—delay and death go hand-in-hand. The only way of making sure that wounded get the earliest possible treatment and therefore the best chance of living is to move the operating theatres along with the battle-line and close up behind it. It obviously entails risks of no small order for the medical personnel, but these are cheerfully accepted. Serious casualties are now frequently operated on within as little as two hours after wounding, and the mortality rate is normally only about 5 per cent. among the cases treated in the forward areas, and much less over the wounded as a whole. These field surgical units are, in effect, complete portable hospitals with usually about twenty beds, the whole outfit being packable on to three Army lorries. On arrival at a site, they can "set up shop" either in the tents they carry with them, or in such premises as abandoned schools, garages or warehouses. Often within the hour, and at most within four hours from the time of arrival, they are ready for work. They carry everything with them, and can perform well over 200 serious operations before requiring replenishment of their supplies.

THE FRONT-LINE MEDICAL UNIT IN THE ANZIO BRIDGEHEAD: An actual photograph which shows the tent hospitals, the building where urgent surgical operations are performed, and the lorries which convey the medical equipment

A typical team consists of a surgeon and an anæsthetist, six R.A.M.C. orderlies, and the three lorry drivers. These last are more important members of the team than might be imagined: not only do they operate the electric generating sets, but they do much of the dressing and instrument sterilising. As a rule the operating theatre has two tables. While the surgeon is attending to a case on the first table, the next case is being got ready on the other. In some of the early Italian battles, operating sessions of sixteen hours on end were not uncommon: amputations, severe abdominal wounds, fractures, petrol burns—surprisingly frequent and severe, these last, with tank warfare and motor transport—bullet wounds; these cases followed in an apparently unending stream. Since after serious operations the patients may not be movable for a week or more, the forward surgical unit usually carries out the operation and then hands the patients over to a local running team for care until fit to move, while the "surgery" itself moves on in the wake of battle. In ten months in which one such unit was working in North Africa and Sicily, it performed 1,400 operations and shifted camp over thirty times, or very nearly once a week.

As a result of this bold policy of moving the hospital to the men rather than the men to the hospital, "gas gangrene," which was a scourge in Flanders in the last war, is now comparatively rare. Of course, there are other factors besides the forward surgical units which contribute to the far better survival chances of the modern soldier when wounded, as against the last war. The modern soldier usually (though not always) does far less marching—he generally goes up the line by lorry. He is usually less fatigued at the time of fighting, and the fatigued man suffers far more from shock. Again, most of the fighting so far has been in fairly warm areas, whereas in the last war trench life in the mud and cold of the Flanders winter was bound to reduce physical stamina. But besides the field surgical units, undoubtedly the blood transfusion service has played one of the greatest individual parts. Probably one in every five wounded men gets a blood transfusion, the average being two or three pints per case, though seriously wounded men may receive anything up to twenty pints or more.

TWO SURGEONS AT WORK UP NEAR THE FRONT LINE IN ITALY: The Field Surgery Unit of the R.A.M.C. is a mobile unit, with an establishment of two majors and approximately twenty other ranks. It is their job to go wherever the fighting is most intense, and they must be prepared to operate immediately on urgent cases. The Unit carries full equipment, including lighting sets, with a motor to supply the current. On occasions when the lighting has failed they have carried on by the light of hurricane lamps and car inspection lights. The two officers work as a team and have performed many operations under enemy shell-fire: they are here seen in a much-bombed and shelled Italian prison operating on a patient suffering from gunshot wounds in the abdomen. The area in which they are working is under enemy shell-fire

THE CASSINO TANGLE: THE SITUATION IMMEDIATELY AROUND THE MONASTERY, where the opposing forces approach closely under the towering walls and where the dead lie unburied in No Man's Land between the British positions and the ravine—*Drawing by W. G. Whitaker*

From the
ITALIAN BATTLE AREAS
New Pictures of Scenes in and Behind the Fighting Lines

The huge Monastery of St. Benedict still rears its massive walls above the surrounding ridges and gullies which break the hill-slopes of Monte Cassino. Its walls, certainly, are battered, broken in places—a 30-ft. stretch fell not very long ago—but the pile as a whole still stands and frowns down upon the Allied positions. There is no definite line up here on the high hills; both sides are content to hold a series of positions where the intervening area may be two or three miles apart or may converge to 40 yards—as they have done in one position close to the Monastery itself. Here the Allies have been occupying a ridge close under the Monastery plateau. The enemy can in many cases fire down on our positions, but the Allied forces have been able to reply in such a fashion that the intervening area has become a most unpleasant strip of country. Neither side has ventured into it to bury the dead and they have lain there, while the interchange of sniping and desultory exchanges of fire go on. Cassino has indeed been a tangle for several months past, and there seems to have been no flaming sword capable of cutting the Gordian knot

ALLIED TROOPS IN ITALY REBUILD A RAID-WRECKED RAIL JUNCTION
Out of the rubble of an Italian station wrecked by Allied raids and German sabotage, the Allies have built a junction which is now working at top speed to keep our forward lines supplied. As many as sixty trains per day pass through it, each carrying about 500 tons of freight. In six weeks, hundreds of tons of rubble and between 300 and 400 wrecked railway wagons were cleared from the site to open up the lines. Most of the rolling-stock in use is of Italian or German origin and is controlled by British and American R.T.O.s. A number of the trains are driven by American drivers of long experience of similar work in the U.S. This picture shows one of the sidings, with ex-German rolling-stock awaiting removal by the shunters. Note the wreckage left beside the rails—as it does not impede the present operations

A TINY ISLAND RESORT WHICH HAS BECOME A GREAT WAR PORT: This is a general view of the waterfront at the harbour of the tiny island of Nisida, just off the Italian mainland near Naples, which has now become a great gateway for Allied war supplies for the fighting fronts in Italy and in the beachhead. Vast quantities of supplies are passing through this once sleepy bathing resort: at left above is a Tank Landing Ship, with its bow doors open to discharge its cargo; other vessels behind are doing similar work. Nisida is, in reality, an extinct volcano, the circular crater of which forms the harbour. It was on this island that Brutus and Cassius initiated their conspiracy against Cæsar

CONDITIONS IN THE ANZIO BEACHHEAD

BRITISH AND AMERICAN SOLDIERS LIVE SIDE BY SIDE: One of the underground dug-outs in which the fighting men have to live in view of the ceaseless enemy bombardment of the beachhead area. The American is passing a bundle of blankets to his British "room-mate" for the improvement of their underground quarters

BEHIND THE FIGHTING LINE—in a hole in the ground: A company of a British regiment occupy a hollow called "The Bowl," just behind the forward companies. In this area, movement during the daylight hours is allowed in a very restricted space. One of the men is sitting up in his dug-out: his companion sleeps by his side, as, later on after nightfall, he is due to collect supplies

MORTARS IN ACTION IN THE BEACHHEAD: A picture taken during a shoot carried out by a Mortar Troop of the Reconnaissance Regiment. The shoot was directed against a gully in which enemy troop movements had been observed. The mortar has just been fired: one of the crew prepares fresh shells, whilst the remainder duck from the blast of the explosion

THE K.B.E. IS PRESENTED TO GENERAL CLARK BY GENERAL ALEXANDER: On April 29, the G.O.C. of the Allied Armies in Italy presented the insignia of a Knight Commander of the British Empire to Lieut.-General Mark Clark, Commander of the Fifth Army. After receiving his own decoration, General Clark then made awards to officers and men of the Allied Forces in the presence of General Juin (leader of the French Army in Italy)

A MOBILE FIELD-LAUNDRY FOR THE ARMY AT ANZIO: Serving with No. 2 Mobile Laundry Company are four sections, working together as a platoon, comprising one officer and twenty-eight men. A section consists of a trailer, handled by a sergeant and five men. About half of the men in this section were connected with the laundry trade before the war. A trailer carries a washing-machine, a hydro (a centrifuge to throw off the water from the washed clothing), drying-tumbler, boiler, soap-tank, generating set and water-pump. Each trailer has a capacity of 80 lb. of washing per hour, whilst the platoon can handle a maximum of 10,000 troops' washing per week.

THE OPENING OF THE "SUMMER SEASON" AT ANZIO: During the past few days the weather in Italy has undergone a change, and it now looks as if a real summer season is on the way. The American and British soldiers in the beachhead have already declared the season open! They are indulging in boating, swimming and sailing off the Anzio beaches in their off moments. But missing from the once-famous seaside resort this year are the wealthy Fascists who used to come regularly to the villas and hotels at Anzio. The "boat" in the above picture is a rubber dinghy borrowed from a nearby Air-Sea Rescue base

BRITISH COMPANIES and the ANTI-TRUST LAWS

The Coming Prosecutions in the United States Under the Sherman Acts and How They Will be Conducted. By CHARLES GRAVES

THE recent announcement that three famous British trading concerns—Imperial Chemical Industries, British Titan Products and the British Match Company—have been indicted by the Federal Courts of the United States under the Sherman Anti-Trust Laws must have come as a shock to the shareholders, and as splendid news for Goebbels in his campaign to split Anglo-American unity.

Few people in this country know anything about the procedure of the Anti-Trust Laws, much less their origin. Their history dates back to 1890, and follows publication of a series of sensational "exposures" of big American companies. Ida Tarbell, with her *History of the Standard Oil Company*, and Upton Sinclair, with various books, were the pioneers of this literary "muck-raking." So successful were they that a wave of anxiety spread throughout the United States, and Anti-Trust legislation was rushed through Congress with the avowed purpose of preventing interlocked directorates and Combines squeezing out small holders.

Once the law had been passed, every American breathed a sigh of relief and forgot about it. The Sherman Anti-Trust Law was, in fact, a dead letter until Theodore Roosevelt became President of the United States in 1903 as the result of his Trust-busting campaign, which won him immense popularity. This Trust-busting was undertaken in spite of the fact that every country needs big companies with sufficient capital to carry out research work.

Once again the agitation died down, and the Sherman Law was amended by the Clayton Act in 1914. This permitted the existence of Combines in international relationships, providing that the Trusts were financed in the United States and operated overseas, the whole purpose of the Act being to enable the United States to compete against Great Britain in South America. This Act is still on the books, and seems somewhat unilateral in view of the recent indictment of the three British companies.

It must be pointed out, however, that Trusts in the United States are very different from anything that would be possible, much less permissible, in Britain. In the State of Iowa, for example, no margarine can be sold, because it is against the interests of the dairy farmers who control the State legislature. In another State, milk can only be sold in bottles which are made by one particular firm. Imagine such a state of affairs in Great Britain! No wonder that from time to time a wave of Anti-Trust indignation sweeps over America and the Sherman Act is resurrected.

It must not be supposed, however, that the indictment of the three British companies is actuated by anti-British feeling. American industry has suffered many onslaughts under the guise of the enforcement of the Sherman Anti-Trust legislation. The scale and the extent of the onslaught can be judged from the fact that indictments have been obtained against 868 Corporations and 84 Unions.

With the exception of the Aluminum Company of America, none of the Corporations or Unions have had the temerity to fight the indictments, and for a very good reason.

This legislation is exceedingly rugged in its democratic attempts to protect the individual. What happens is this. The Department of Justice arraigns a firm, or a number of firms, before a Grand Jury consisting of a minimum of eighteen men and women. Witnesses are summoned, and after a preliminary examination by an Assistant Attorney-General outside the Court, the witnesses are brought before the Grand Jury. Each witness has to appear alone, without counsel, without solicitors and without any staff to whom he can refer. No judge is present, the only people besides the jury being the prosecuting counsel with his assistants and staff.

The procedure consists of an indefinite cross-examination. There is no examiner-in-chief, and there is no re-examination. Counsel for the Government only puts questions which he thinks will lead to a point which he desires to make to the Grand Jury; and if the witness attempts to make any statement to correct some conclusion to which counsel for the Government is directing the jury, he is at once informed that he has no right to do anything except answer directly the questions put to him. As a result of this procedure, the Government is left in possession of a verbatim shorthand report of the evidence, of which the witness is not allowed a copy. Moreover, he is forbidden, under severe penalties, even to discuss his evidence with his colleagues and lawyers. As may well be imagined, there is little difficulty in obtaining an indictment, on the basis of which a firm or firms, or the individuals responsible in those firms, can be prosecuted under a criminal code; and penalties can be inflicted by the Court on such a scale that any firm, however large, can be totally ruined if the maximum penalties are in fact inflicted.

With this power behind it, the Department of Justice opens negotiations with the defendants in the mutual understanding that a trial will be long and expensive, the outcome uncertain and the potential penalties severe. In these circumstances, most defendants are prepared to negotiate. Indeed, in 99 cases out of 100 the defendants have always submitted to judgment, though they usually insist that a clause is introduced in which they deny admission of guilt. The fact remains that they agree in future only to make such arrangements as may be approved by the United States Government, and to report to the appropriate Department any agreement they make with any firm in any part of the world.

The daring exception to this rule was provided by the Aluminum Corporation of America, whose prosecution made judicial history. The company and its officers were indicted on a total of 400 counts, and the case lasted two years—the longest on record. Half-way through the case, the Assistant Attorney-General, who was prosecuting for the United States Government, resigned and accepted the presidency of a competitive firm of aluminium manufacturers. (During the case, naturally enough, he had become conversant with all the technical and commercial secrets of the firm he was prosecuting.) When the case finally ended, it had cost the Aluminum Corporation a matter of £500,000. On the other hand, it was acquitted on every one of the 400 charges. Unfortunately, the publicity given to the case with the series of Press conferences addressed by the Assistant Attorney-Generals who were prosecuting, was on such a scale and of such a character, combined with the length and the cost of the case, that it was evident to other companies who might be indicted in future that the only sensible course was to come to an agreement with the Department of Justice rather than to defend themselves in open Court.

This procedure is astonishing enough; what is almost more remarkable is that any firm or officials of a firm who may be connected in any manner whatsoever with the defendant are cited as "co-conspirators." And the position of the co-conspirator in these proceedings is peculiar indeed. By American law (and it must be remembered that it has, until now, always been American firms and American citizens who have suffered) he has not even the privilege of appearing in the dock to be defended by counsel even in the unlikely event of the case going to Court. He is merely cited. His name is published. No penalties can be exacted, but he has no opportunity within the proceedings of the Court to make any statement in his own defence. Long lists of co-conspirators are cited in every case of this kind, and the procedure would appear to have no purpose or effect whatever, except to bring into unwelcome prominence the names of firms or individuals who are of sufficient importance to be worth baiting in this way.

In conclusion, it seems a pity that attacks on British business should be made by American lawyers, who do not seem to realise that their charges may have an unfortunate repercussion on men who are fighting side by side with American soldiers against the common enemy. And if anyone doubts the authenticity of these details of legal procedure in the United States, I need hardly say that I have consulted two leading American lawyers for my facts.

NEWS PICTURES FROM THE AMERICAN CONTINENT

I.—AT A PORT ON THE AMERICAN EAST COAST: Invasion material pours out of the United States on its way to England for the opening of the coming Second Front

II.—PRESIDENT ROOSEVELT RECEIVES THE LOG OF CAPTAIN COOK'S VOYAGE TO AUSTRALIA: Left to right in this picture are Mrs. Roosevelt, Mr. Archibald MacLeish and Sir Owen Dixon

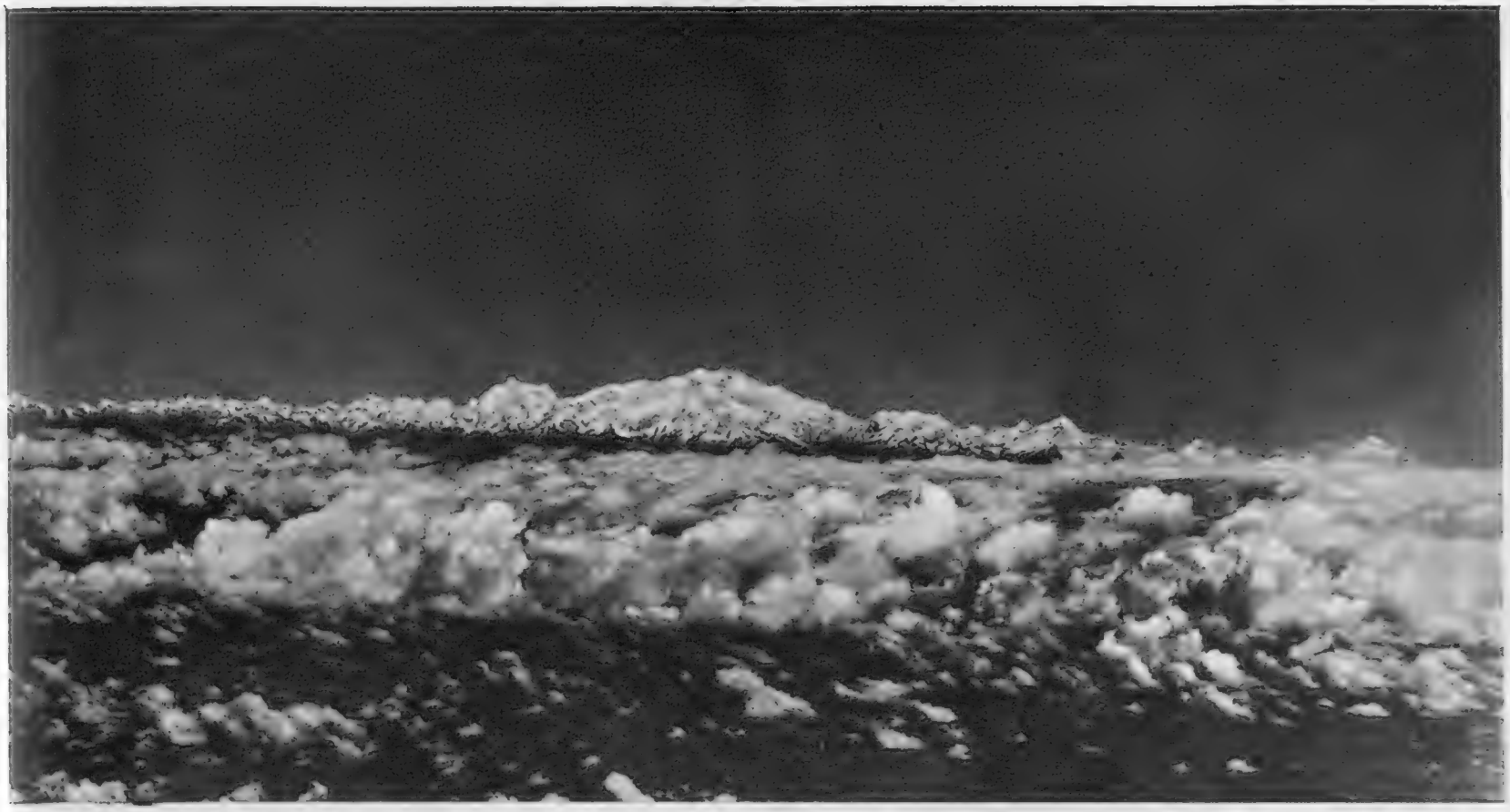
III.—THE SCENE IN MONTREAL after fifteen had died after a bomber crash on a tenement

I.—The barge-loads of decontamination trucks are being moved about the harbour to be loaded aboard waiting freighters. This and other types of war material are consigned for the huge Invasion supply dumps in Great Britain and elsewhere.

II.—The log of the discovery of Australia by Captain Cook on a voyage lasting from 1768 to 1771 has been presented to President Roosevelt at the White House by Sir Owen Dixon, Australian Minister to Washington. Mrs. Roosevelt brought the historic document from Australia after her recent visit. Following the ceremony, the President turned the document over to Mr. MacLeish for the Library of Congress.

III.—The general view of the wreckage in the city of Montreal, Canada, after explosion and fires had raged through a tenement following the crash of a Liberator bomber of the R.A.F. A death toll of fifteen was announced: those killed included five members of the crew, a policeman and nine tenement residents. The plane crashed just after taking off for Britain.

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export



TAKEN FROM AN AIRCRAFT CARRYING OUT ALTITUDE TESTS AT 27,000 FT.—a new picture of three of the four highest mountains in the world in the Himalayan Range

THE HIMALAYAN PEAKS—*An R.A.F. Picture*

On the left in this picture is Mount Jannu, 25,294 ft.; Mount Kangchenjunga, 28,146 ft., is in the centre; Mount Pandim, 22,010 ft., is the conical peak on the right. This most impressive view was taken recently from an R.A.F. aircraft flying above the clouds some 150 miles south of the main Himalayan Range. After Mount Everest, the world's highest and most romantic peak, Kangchenjunga is the best known of the Himalayan group: it has been described as "the very queen of mountains." The view of it from Darjeeling is the finest in the world. It forms the majestic culmination of a great spur which extends south from the main range: its name means "the Five Treasure Houses of the Great Snows." All three mountains included in this picture lie near the Nepal and Sikkim borders

ONLY DISCOVERED AS THE RESULT OF WARTIME CONDITIONS: A hitherto unknown glacier of vast dimensions which has been hidden for ages in Northern Alaska

A 50-MILE LONG GLACIER in ALASKA

Flying over the frozen wastes of Alaska, American airmen have just discovered this huge glacier, which stretches for a length of 50 miles. The discovery was made during flights undertaken by the U.S. Army Air Force in the course of a geological survey of the 292,000 square miles of Arctic territory. Within the Alaskan territory are some of the highest mountains of the whole North American Continent: from the snowcaps of these, huge glaciers descend to the sea. Volcanoes, too, abound. Were it not for the war, and the consequent rapid opening-up of Alaska for war purposes, it is doubtful whether this vast new glacier would have been discovered for some time to come. The striking picture reproduced here was taken by three specially mounted aerial cameras

NEW LAMPS and OLD

A Fortnightly Causerie on Life and Letters

By JOHN GORE

OVERTURE TO LIFE.—Some person unknown sent me a copy of John Townend's *Overture to Life*. It is an interesting and well-observed record of an English boy's experiences in Canada and the U.S. during his training, and wing-winning, as a fighter-pilot in the Fleet Air Arm. I shall not review the book, because I do not know if it was sent me in friendship or in the way of business. Enough that it has the *naïveté* of youth and more than the average promise of first flights (in literature); for the young man writes with commendable simplicity, clarity and directness, and his powers of observation and description are well developed in one of his tender years.

His book held my interest and affords me a peg on which to hang an article of my own.

It is unquestionably interesting to compute the large number of young men who, please God, will survive this bitter and disastrous holocaust (to play a leader's part in the aftermath), who will have gained an experience in the school of life which no conditions but total war could conceivably have secured to most of them at the tender age at which (from war necessity) the State afforded it to them without charge. It is possible to number in hundreds of thousands to-day boys who have received a well-used State scholarship to the University of Life; the only up-to-date, modern university which gives them the means to benefit, as only the children of the very rich (and they with inferior prospects of good results) could afford in any previous era in our social history. Each and all, here or there, have done the "grand tour" under the best auspices, not with an easy tutor or a lazy companion in search of distraction, but under constant discipline, wise supervision and broad-minded planning. They have come to know the men and women, the aspirations, conditions and institutions, of other countries in the New or the Old World, and for ever henceforth they must view the world on a larger scale, must see England as but a unit of a great Commonwealth of Nations and each of them his own "backyard," his own career, as but a tiny pin-point on a sectional map which, in turn, fits into a tiny space on a vast chart of civilisation.

A HARVEST FROM THE HEDGEROWS OF BRITAIN: Hanging up herbs to dry in the village schoolroom. Among the tanks, guns and other machinery massed for the Second Front, the children of the villages are gathering nettles and searching for tansy, yarrow, wood sage and foxglove which one day might save the lives of Service men. Here are some of the hedge-hunters hanging their "bag" up to dry in the sunny classroom. Britain used to import a lot of her drugs—some from Germany. Herb-gathering is covering up the shortage. In 1942 British children gathered 1,000 tons; in 1943 they knew what to look for and turned in 2,000 tons; now the drive is on for 4,000 tons in 1944. It takes a lot of herbs to make a ton

The Grand Tour.—Right back to the eighteenth century—nay, to the Middle Ages—Englishmen have recognised the supreme importance of this "grand tour" aspect of an educated citizen's preparation for life.

In the Middle Ages, indeed, religion dominated politics and education, and the wealth and greatness of religious houses established across Europe produced the nearest approach to a League of Sane Nations which Europe hitherto has known. A youth could stage his way from London to the Near East and find every night a lodging among educated men, all speaking a common language—Latin.

In the eighteenth century, the grand tour became again an essential prelude to educated citizenship. Only the rich could compass it. The country squire (who could not or would not) was rightly regarded by the enlightened few as a boor and a sot.

My great-grandfathers made the tour as a matter of course, and returned with their wider view and their minor Italian masters and statuary which still adorn their descendants' shrunken and shabby walls. My paternal grandfather was raised in comparative poverty. He only once went abroad before he was turned thirty. But he recognised the importance of foreign travel, and spent his first earnings (£30) on a voyage to the South of France in a tramp steamer, and that short visit coloured his vocabulary and influenced his whole career.

My father was better circumstanced. After leaving Harrow he was sent to be "finished" in Paris, where he stayed for many continuous months in the house of M. de Flahault, Napoleon's Secretary and Talleyrand's son.

The extent to which this long graduate course in the cultural capital of Europe influenced his life and thought was remarkable, and became apparent to me quite early in life. It set a stamp on his culture and political thought which must have been patent to all who knew him.

I did not have his advantages, though I had more than my grandfather had. But I must have blindly recognised the importance of *getting overseas*, for I threw up my first "safe" employment and risked my small nest-egg in an ill-planned and very forlorn effort to see, if not to succeed in, the New World, and I made half-a-dozen cheap expeditions into Europe.

Looking back, I am for ever astonished by the influence which these trivial and brief contacts with Americans and Canadians, Italians, Germans, Dutchmen, Frenchmen and Belgians in their homes have had on my conception of citizenship and of world citizenship.

Compared with young Townend's opportunities in contact with Canadians and Americans, my own were inconsiderable. Yet, for what they were, they were tremendous in their influence upon my life. At the best, these overseas visits were all the education I have—in citizenship, at least. At the lowest, they help me to realise how vastly important such contacts always were and, increasingly, are.

The Village Pump.—The village pump, the backyard, is the strength of Britain and America (and, no doubt, of all Europe too); it is also their curse and fount of weakness. For that pump and that backyard the Democracies have stood against helpless odds with backs to the wall—for an ideal—and always come off triumphant. Yet for that pump and that backyard, time and again, because they could not see beyond it, they brought themselves to the crater-edge and gambled away or threw away their security and their peace and their panache and their influence. They handed out the wrestler's favour to any and every "all-in" wrestling thug who challenged them.

Their nationalism stimulated them to fight with desperate courage and superhuman obstinacy each for one (perhaps ugly) acre of their country, but that nationalism was also, time and again, when danger was remoter, the meanest and most myopic kind of provincialism, only redeemed in some sort by being non-aggressive. Civilisation still needs to foster love of country, and that love must always have its origin in the small environment of youthful memories; and the pleasanter we can make those memories, the stronger will be the love. But if civilisation is to survive and improve, we must now and henceforth outlaw provincialism and see to it that every back-yard child begins early to see the world on a larger scale and far beyond the confines of his home town and State frontiers. Our children will not, at any rate for years to come even under improved educational facilities, achieve this wider view from the study of books or from the mouths of their teachers or parents. There is no way but in travel, in going out to see for themselves what lies beyond their county and country frontiers; no way but to live in the conditions and think with the minds of peoples of other lands; to resolve for themselves the impenetrable and irritating puzzle of why and wherefore what seems so sensible to *us* should strike a Frenchman as grotesque or boorish, and that which an American regards as essential propriety may appear uncivilised to a Briton.

The Curse of Babel.—The story of Babel has never yet lost its force as a parable for mankind. It is still the most living and poignant example of the contrariness of things human. You kick over an ants' nest and smile to observe the utter confusion you cause. The system which devised that men should speak in a hundred tongues and see the same objects with a thousand different kinds of eyes, kicked over the human ant-heap and laughs at our sorry confusion. The Babel of tongues and ways of thought is our No. 1 human tragedy, the sorriest jest played on mankind by Fate. Until we destroy our Babel and build again the City of the World on modern lines, we shall remain fettered to our fate, slaves to misunderstandings, condemned to hatred, jealousy and wars. All the improvements of science in communications—vaunted to the skies—have totally failed to provide a new way or an easy way to that rebuilding. To-day and to-morrow still the young men must bind their sandals on and take staff and scrip and set forth on their journeys to find their fortunes and the key to that happiness without which birth is only a mockery and death only a release—the key which can lock the door on everlasting war and international hatred.

The New London Stage Productions

Reviewed by PHILIP PAGE

HOW ARE THEY AT HOME? (Apollo).—I did not see Mr. J. B. Priestley's recent play about soldiers written for the sake of civilians at home, but if it is as good as its converse, *How Are They At Home?*, it will do amply well "and then some." The author in a programme note explains that "it was decided to produce the play here in the ordinary way before the various ENSA companies reproduced it abroad . . . so that audiences here should have a chance of seeing what I hope their men overseas will soon be enjoying." There is much in the play that is enjoyable, and much, too, that is characteristic of the author (which is not always quite the same thing). It is a jolly, topical comedy about a country mansion in the North of England, in which all sorts of types are billeted. They are most of them present-day types to the *n*th degree—even Lady Farfield, the hostess (Miss Jane Carr), works in a war factory—but there is an exception in Mr. Charles Groves as the old butler, a real relic of Edwardian days and most beautifully played. This oddly-assorted gang laugh and love and chatter about politics, and an R.A.F. officer, in uniform, slaps Lady Farfield's face, which certainly would not have happened in the Edwardian era, even if the R.A.F. had existed then. Much to the fore are a Communistic Land Girl (Miss Jennifer Gray), an opera-singer turned cook (played—and sung—by Miss Hella Kurty) and a nice, kind American soldier (Mr. John Salew). Mr. Basil Dean has given us an immaculated production—and every word is audible.

Théâtre Molière (Arts).—Here we have what must surely be an unprecedented season in the history of our stage—a French company, with a few English additions, giving us two plays of Molière, the first in English and the second in French. It was not because there was anything wrong with the English of the players in *Le Medecin Malgré Lui* that I preferred the second, *Les Précieuses Ridicules*, but because it is, I think, the better comedy of the two. M. Paul Bonifas was uproariously funny in both.

The QUEEN in the EAST END

—And Other Pictures from the British Home Front

THE QUEEN LEAVES THE GEFFRYE MUSEUM after her visit to girls and boys from schools in Shoreditch and neighbouring districts : For more than an hour and a half the Queen walked round watching schoolchildren working in the rooms of the Geffrye Museum during her visit to the East End last week. Informal art classes are held at the Museum daily. Some of the children she saw were cutting-out period dresses from scraps of material to paste on paper dolls. The Queen was particularly interested in the educative equipment. She was told that in one week during the school holidays 3,000 children had attended. The news of the Queen's presence soon spread, and a large crowd of mothers and children, to some of whom she spoke, cheered and waved as she left

THE QUEEN WATCHING SOME OF THE CHILDREN AT WORK in the Geffrye Museum during her visit to Shoreditch last week

THE CHIEF OF THE U.S. NAVY CHAPLAINS VISITS BRITAIN : with the Archbishop of Canterbury. From left to right—Captain Robert D. Workman (Chief of the U.S. Chaplains Corps) ; Lieut.-Commander Joshua L. Goldberg, aide ; the Archbishop ; Lieut.-Commander F. R. Williams, Assistant Staff Chaplain, U.S. Navy Forces in Europe ; Captain Frank H. Lash, Staff Chaplain ; and Commander John R. Boslet, aide. Captain Workman has arrived here for an inspection tour of American naval bases and for informal discussions with high-ranking Church leaders. Shortly after his arrival he paid his respects to the Archbishops of Canterbury and Westminster, the General Secretary of the Free Church Federal Council and the Chief Rabbi

CAPTAIN WORKMAN, CHIEF OF CHAPLAINS OF THE U.S. NAVY, WITH THE ARCHBISHOP OF WESTMINSTER. From left to right in this group are Lieut.-Commander Joshua L. Goldberg ; Captain Robert D. Workman ; the Archbishop ; Captain Frank H. Lash ; and Commander John R. Boslet

FIELD HOSPITAL TRAINING FOR AMERICAN ARMY NURSES IN BRITAIN : Many Army nurses from the United States are now undergoing training at a centre in England, in readiness for forthcoming operations. Here they go through a toughening-up course under field conditions : this includes physical exercises, gas drill and judo (the art of self-defence) before being posted to Service stations. This picture was taken during anti-gas drill : when the "gas alert" is given, the nurses speedily don respirators and envelop themselves in cellophane bags which afford them complete protection against contamination

HOW WOUNDED AIRMEN ARE HELPED TOWARDS RECOVERY : The woman in uniform is Subaltern Anne Sanctuary : she is inviting Flight-Lieut. Howard Lester, of the R.A.F., to take the floor and dance—despite his wounded leg. This is part of the work carried out at an R.A.F. Rehabilitation Centre, where it is realised that nothing succeeds so much as—trying !

The World of Books—By Vernon Fane

NEW BOOKS OF DIFFERENT INTERESTS

Drawings of "England's River"; Army Sisters on Service; Two Detective Stories; Gardening Reflections and Suggestions; King Arthur and His Knights

INCOMPARABLY the finest production of the week is THAMES TRIUMPHANT (Studio. 15s.), a volume which is half text and half drawings in pen and pencil on a subject which seems as inexhaustible as the Seven Springs from which "England's river" starts. The text is a pleasant and discursive mixture of anecdote, historical fact and rambling reminiscence, whereas the line drawings are exquisitely precise and graceful—a combination which is perfectly successful and on which we should congratulate Mr. Sydney R. Jones—artist and author.

Although the illustrations begin with a view of Coberley, the first village below the source of the Thames, and pursue their ordered way, rather like

GERMANY'S MOST FAMOUS EXILE, PROFESSOR ALBERT EINSTEIN: A new picture of the great scientist in the study of his house in Princeton, New Jersey. The Professor recently celebrated his sixty-fifth birthday: since his departure from Germany he has lived in a wooden house, painted white, one of a row of sunny, tree-lined dwellings in the township built around America's famous University. His study overlooks the garden: his bedroom communicates; and both rooms are lined with books. Professor Einstein is now engaged on research work for the U.S. Navy

the river itself, down to Greenwich and Deptford, the chapters that accompany them are more capricious and skip from personal memories of happy days spent on and around the river, to accurate information about such things as Drake's great house which used to stand near the place now occupied by Cannon Street Station and was curiously called the Erber.

All in all, this is a book to cherish, to keep on your most accessible shelf, to preserve from salvage-hunters and to lend only to the more honest of your friends. On second thoughts, though, why couldn't they buy their own copies?

GREY AND SCARLET (Hodder and Stoughton. 6s.) is a modestly-priced little book which tells, episode by episode, one of the great stories of the war—a story to which fresh chapters are written every day. The book, which has been edited by Miss Ada Harrison, is a collection of letters from war areas written by Army sisters on active service. The colours in the title refer to the uniform of the Queen Alexandra's Imperial Military Nursing Service, more familiarly known as the Q.A.s.

These nurses derive direct from Florence Nightingale, though they are to-day professionals, and the organisation was founded in its present form in 1902. They have accompanied our fighting men on land and on sea, and these letters, written by them without any idea of future publication, are a great, if unconscious, tribute to their qualities of courage and discipline.

The Q.A.s and the T.A.N.S. (Territorial Army Nursing Service), merged with them in wartime, have had experiences in the last four and a half years in countries where the temperature ranged from the Arctic to the tropical, and where conditions alternated between tedium, hard work and immense danger. In fact, it might be said that the only constant condition was that of hard work.

Here the reader will find letters—and amazingly calm ones—from nurses who went to Dunkirk to take off the wounded from the burning piers and beaches; nurses who endured two years of monotony, and hardship in Iceland; nurses who worked at Tobruk, in Malta air raids, in the evacuation from Greece, who were torpedoed in each of the seven seas, who escaped from Singapore on the last morning of all, who survived twelve days in a lifeboat and who lived and worked through a voyage in which the ship had seven direct hits.

These are magnificent stories, and all the more impressive for the detachment with which they are told. The nearest approach to emotion is in one sister's account of a U-boat action: "I am afraid the time in the open boat was rather vague to me." But all of them should be read with gratitude and, I think, the greatest respect, for those women of whom Queen Mary writes in her foreword: "I am proud of my nurses."

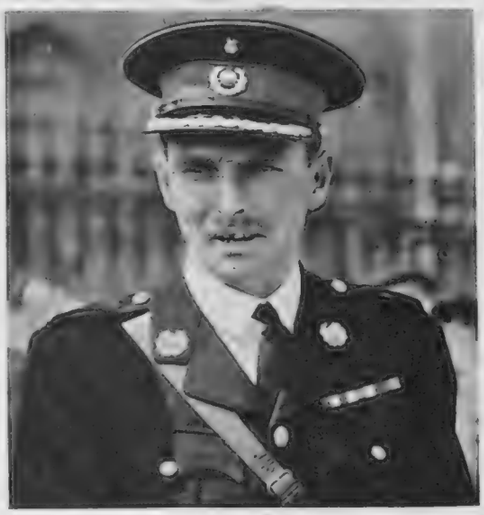
Detective stories grow more intricately complicated season by season, heading obviously for a millennium in which only weekly solvers of the Torquemada crossword puzzle will be able to read them with either pleasure or comprehension. In this genre, two of the masters are Mr. E. R. Punshon and Mr. H. C. Bailey, both of whose new novels I have read this week.

First of all, NIGHT'S CLOAK (Gollancz. 8s. 6d.), by Mr. Punshon, in whose work Miss Dorothy Sayers herself "salutes distinction every time." The murder case in this book is down to be solved by Inspector Bobby Owen, whose career all loyal Punshoners and true have followed through some eighteen volumes. The murderee is the leading business light of a small town, Midwych, and he is found dead in his own study with the greater part of a Japanese knife embedded in his neck.

Working on the basis of motive alone, there are many suspects who stand to gain something from the death of this William Weston. First, his nephew, an aeroplane designer; then that nephew's associate, who plans to run a factory on democratic lines; then a young man who once worked in the factory; a barmaid called Bessie, and an almost ludicrously glamorous secretary, Thomasine.

No fewer than three Japanese knives turn up during the hunt for the real criminal—a further example, perhaps, of Tokyo mass production. But after the unravelling of endless alibis, a mad chase through woods in the black-out and an attempt by the women to poison one another, the mystery is solved, and Inspector Owen's stock rises two more points still.

Mr. Clunk and not Mr. Fortune, as in at least thirteen previous books, dominates the lowering landscape of SLIPPERY ANN (Gollancz. 8s. 6d.), the other excellent and equally involved thriller of this week's batch. With one reservation I can be described as an enthusiastic fan of Mr. H. C. Bailey's,



A UNIQUE HONOUR FOR A MAJOR OF THE MARINES: When Major Peter Hellings, a Royal Marines Commando, received the M.C. at a recent Investiture at Buckingham Palace, he became the only officer of the Marines to hold both the naval Distinguished Service Cross and the military honour. He won the D.S.C. at Boulogne and the Military Cross in Italy

and that reservation is my jaw-dropping dismay at Mr. Fortune's conversational style. His powers of detection—admirable; his dialogue (by Salvador Dali out of Poona) dumbfounding.

Happily, we escape that in the present book, although there are two beings, apparently adolescents, who come dangerously close to it from time to time.

"'A sea there is but who shall drink it dry?' said Jerry. As per old man Æschylus, he had a word for most things. You ought to do a spot of Greek, my girl. It would help you out with your Cassandra stuff."

"Browned off by Browning. Leave to Robert *et femme* beggars, fleas and vines and their droppings of warm tears."

"The answer is a lemon. You crossed your feet, Taff. The swallet drinks down all that matters. *Allez* hoop!" And so on.

But sanity prevails in all other passages, and Mr. Bailey has written a good, topical detective-story of black marketers, Nazi agents and murderers all operating in a South Coast port, and all being involved with each other to an extraordinary and ingenious degree. It is Mr. Clunk who sorts out the pieces of the jigsaw and drops them tidily into place till they form a picture of murder and retribution. And it is Mr. Clunk, the lawyer, who hums his hymn tunes and sucks his pieces of toffee as he works out move after move.

Mr. H. J. Massingham's new book took him two years to write and, from the reader's point of view, those have been two years well spent. One might hope that they will also be rewarding. THIS PLOT OF EARTH (Collins. 12s. 6d.) is described as a gardener's chronicle, and it is essentially that, for all its diversions into other matters.

The book consists of three parts. The first and longest describes the garden itself and the author's interpretation of what a garden should be. For myself this is the part that carries most enchantment, and the most satisfaction. He describes the layout of the garden, the reasons for the choices made in flowers and fruit trees, and the qualities and advantages of his vegetable plot.

A STORMY PETREL OF THE LABOUR PARTY: Mr. Aneurin Bevan, M.P. for the Ebbw Vale Division of Monmouthshire since 1929, whose action in opposing the Government almost caused a split in the Labour Party. Mr. Bevan has actually worked in the coal-mines, and he has been identified with the South Wales Miners' Federation for many years. He is now forty-six years of age and was married to Miss Jennie Lee in 1934

The second part contains Mr. Massingham's conclusions, based on practice and experiment, in relation to the world without, and the third part "looks away from that depressing spectacle towards hopes for a more harmonious future." The whole is a volume that is distinguished, thoughtful and provoking of thought.

Mr. Edward Frankland has certainly not been influenced by Malory in writing his tale of Arthur and the knights. For him THE BEAR OF BRITAIN (Macdonald. 9s. 6d.) was a harsh-faced man, a king without temporal power and a prince who knew more of generalship than of chivalry. Arthur, in fact, appears to have been surrounded by dark schemers and poisoners, one or two of whom he was able to kill off himself, and by an embittered wife who was a contemporary social climber.

King Arthur, however, survived his enemies and, although defeated at one point by the Saxons, he escaped to Brittany on the famous strategic precept that one must "*reculer pour mieux sauter*," and from there launched an attack with a new army, fighting a great battle in which he himself lost his life. As a man of vision, he knew that Britain could only be saved if her people were united against a common foe, and he was perhaps the first head of a really Combined Operation.

The Shaftesbury Homes and "Arethusa" Training Ship

At a crowded meeting on the subject of education, a young Royal Marine stated that he came from a first-class boarding-school—the Shaftesbury School at Bisley—and asked why there were not more schools like that! What encouraging testimony! Head office address: 164, Shaftesbury Avenue, London, W.C.2.

Minced meat and soft cushions

Father was left alone with the stripling for the first time. He groped for his instructions. "Put a cushion on his chair and if he won't eat, talk to him." Talk to him! What about? Cushioning? Why not? "John, old chap, while you're sitting on those cushions, I'll talk to you about pneumatic cushioning. This is an application of Boyle's Law —you won't quite understand that—and it's perfected by the *I.V.* Pressure Controller. The *I.V.* Pressure Controller is both *Infinitely Variable* and *Instantly Variable* It's used to enormous advantage in many industries — shipbuilding, laundering, refining and, today of course, in many hush-hush jobs. Anywhere, in fact, where steam, gases or liquids are used at pressure above that of the atmosphere. Now, who's a clever father?" "Oo," said the little boy, obligingly scooping the last mouthful of minced meat from his tray. Whether you're a proud father or not, if you're interested in the *I.V.* Controller, why not drop us a line?

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Traffic Tickets, Ticket Punches, Totalisators, Automatic Navigators, ★ Pressure I.V. Controllers.	Bell Punch Co., Ltd. 39, St. James's St., London, S.W.1. Factories: Uxbridge, Mddx. *Contractors to the Admiralty, Air and Supplies Ministries, H.M.S.O., etc.*
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PARENT COMPANY · CONTROL SYSTEMS LTD.

"There comes a tide in the affairs of Empire, as of men, which taken at the flood, leads on to fortune. That tide of air transports will flow over the post-war world, and those transports which will carry the citizens of Empire should be the fruit of their brains."

The Rt. Hon. Lord Sempill

Miles AIRCRAFT LTD

READING · ENGLAND

The Royal Air Force Benevolent Fund

TO STRIVE–TO SEEK– To find—and not to yield!

Here is the very essence of the pioneering spirit; the spirit that does not falter in the face of difficulty, that does not doubt in times of stress. It has inspired the pioneers in every field of human endeavour – the gallant little bands of men who make their brave sorties into the dark terrain of ignorance, struggling and enduring, until they reap the fruits of victory for the good of all mankind.

Men like Robert Falcon Scott and his comrades who perished in the Antarctic thirty-two years ago and whose epitaph these words form. Haunted by loneliness amid scenes of incredible desolation; blinded by the everlasting whiteness of the snow; stung and lashed by the fury of icy winds, they fought their way on foot for nearly a thousand miles through the howling wilderness. Their spirit lives on. It is in the finest tradition of our land.

Others, in the fields of science and industry, have made it their purpose "to strive, to seek, to find, and not to yield." They have overcome indifference, doubt and scepticism. That is why our Armed Forces are today the best equipped in the world.

We are proud that in our own special field of scientific filtration we have striven to display the same spirit.

VOKES LTD.

PIONEERS of SCIENTIFIC FILTRATION, LONDON, S.W.

DESIGNERS, PATENTEES AND MANUFACTURERS OF AIR, OIL AND FUEL FILTERS AND OF COMPLETE CLEANER INSTALLATIONS AND SILENCERS

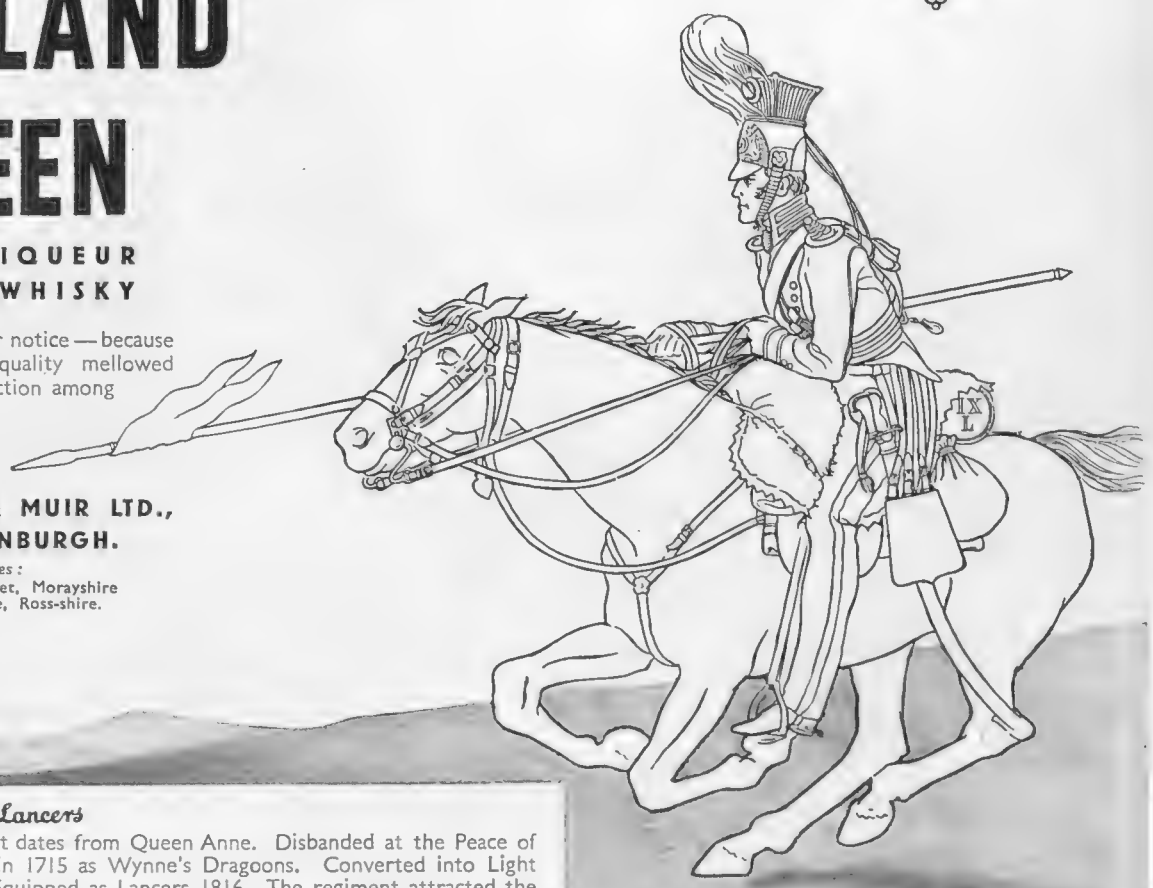
FAMOUS QUEENS...

NINTH · LANCERS

HIGHLAND QUEEN

GRAND LIQUEUR
SCOTCH WHISKY

also attracts particular notice — because of its outstanding quality mellowed by age, and its distinction among well-known whiskies.

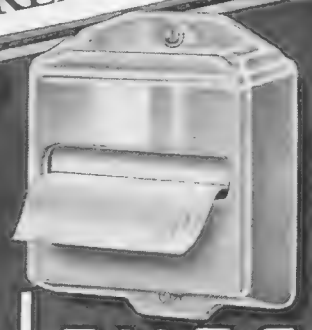


MACDONALD & MUIR LTD.,
LEITH, EDINBURGH.

Distilleries :
Glen Moray-Glenlivet, Morayshire
and Glenmorangie, Ross-shire.

9th Queen's Royal Lancers
This famous Regiment dates from Queen Anne. Disbanded at the Peace of Utrecht. Restored in 1715 as Wynne's Dragoons. Converted into Light Dragoons in 1783. Equipped as Lancers 1816. The regiment attracted the notice of William IV and Queen Adelaide in 1830 who ordered it to be called the 9th or Queen's Lancers and later the 9th or Queen's Royal Lancers.

Toilet REFINEMENT



JEYES'

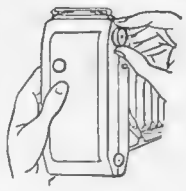
have for seventeen years supplied their famous white porcelain-finished Hygienic Toilet Boxes and Interfolded Paper — the last word in toilet refinement. Unfortunately, owing to the War, the great demand for their paper cannot be fully met. Available supplies are distributed fairly, and the indulgence of users is invoked until supplies become normal again.

New Boxes cannot be supplied during the War.

JEYES' SANITARY COMPOUNDS CO. LTD
MILLBROOK, CHIGWELL, ESSEX

FOR WAR-TIME

PHOTOGRAPHY



Yes, Ensign Roll Film is still obtainable, but only in limited quantities, so please be patient with your dealer if he cannot always supply.

Ensign FILM

is worth asking for

Ensign Ultrachrome Films are available in standard sizes and at standard prices

SUPERLATIVE
QUALITY
AND DESIGN

IN NORMAL TIMES THE BEST SHOPS HAVE THE **VALSTAR "777"** RAINCOAT — SUPPLIES NOW, HOWEVER, ARE STRICTLY LIMITED

J. MANDLEBERG & Co LTD
VALSTAR WORKS
SALFORD 6 · Lancs

X-Rays

There are no fanfares for him; no newsreels show him in action; he wields no weapons more lethal than a slide-rule. But he is instrumental in placing a great invisible power in the hands of others.

He—and his colleagues of the research and development laboratories—have made it possible to see deep into the heart of the metal of vital things like aero engines and gun barrels, to make sure that no hidden flaws exist; they have given to doctors and surgeons an ally of ever-increasing power and scope for diagnosis and cure; to them belongs much of the credit for the part which mass radiography will play in the final elimination of the scourge of tuberculosis.

He and his colleagues have contributed greatly to Philips leadership in the field of X-rays. Their knowledge and experience are of vital importance to the nation today.

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RADIO ★ LAMPS

AND ALLIED ELECTRICAL EQUIPMENT

PHILIPS LAMPS LTD., CENTURY HOUSE, SHAFTESBURY AVENUE, LONDON, W.C.2 (28HD)

COURAGE

Courage is just a little additional something that creates success.

In all circumstances of life, courage is of great value. It is needed in history as much as in sport.

Courage may be compared to business management which has been defined as something added to material and labour to produce the profit.

Nothing is achieved without courage and courage is of the greatest value when it is accompanied by a mind that can continue to assimilate new ideas.

The Chatwood Security is created in an atmosphere of growth, new knowledge, new ideas, and—courage.

J.E.S.

THE CHATWOOD SECURITY

THE CHATWOOD TRADITION
"ACHIEVEMENT IS BUT ANOTHER MILESTONE ALONG THE HIGHWAY OF PROGRESS—THE END OF THE JOURNEY LIES EVER BEYOND."

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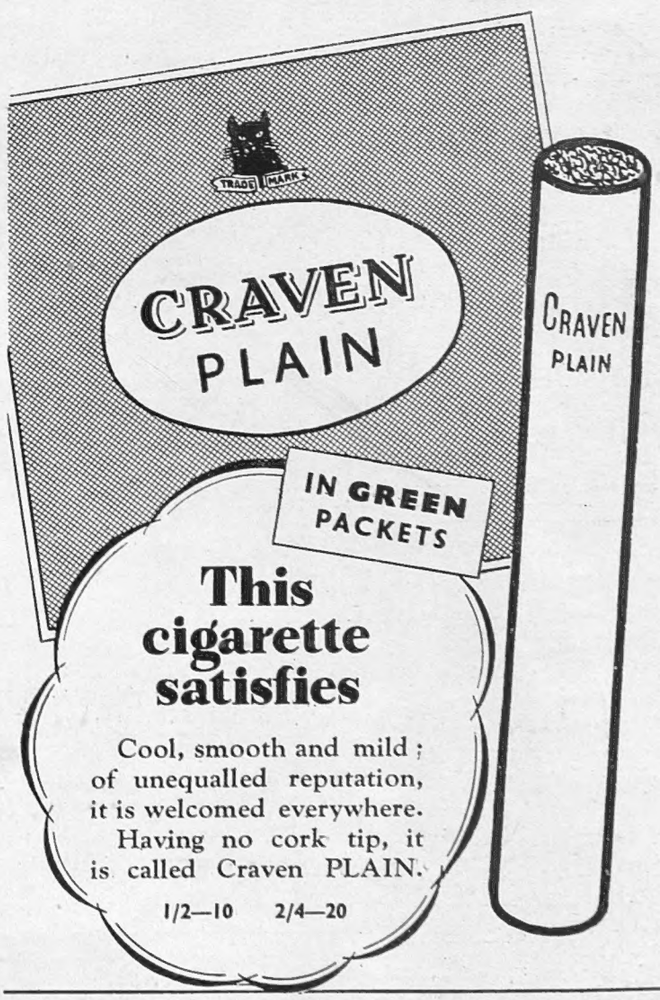

This cigarette satisfies

Cool, smooth and mild; of unequalled reputation, it is welcomed everywhere. Having no cork tip, it is called Craven PLAIN.

1/2—10 2/4—20

CARRERAS LTD • 150 YEARS REPUTATION FOR QUALITY

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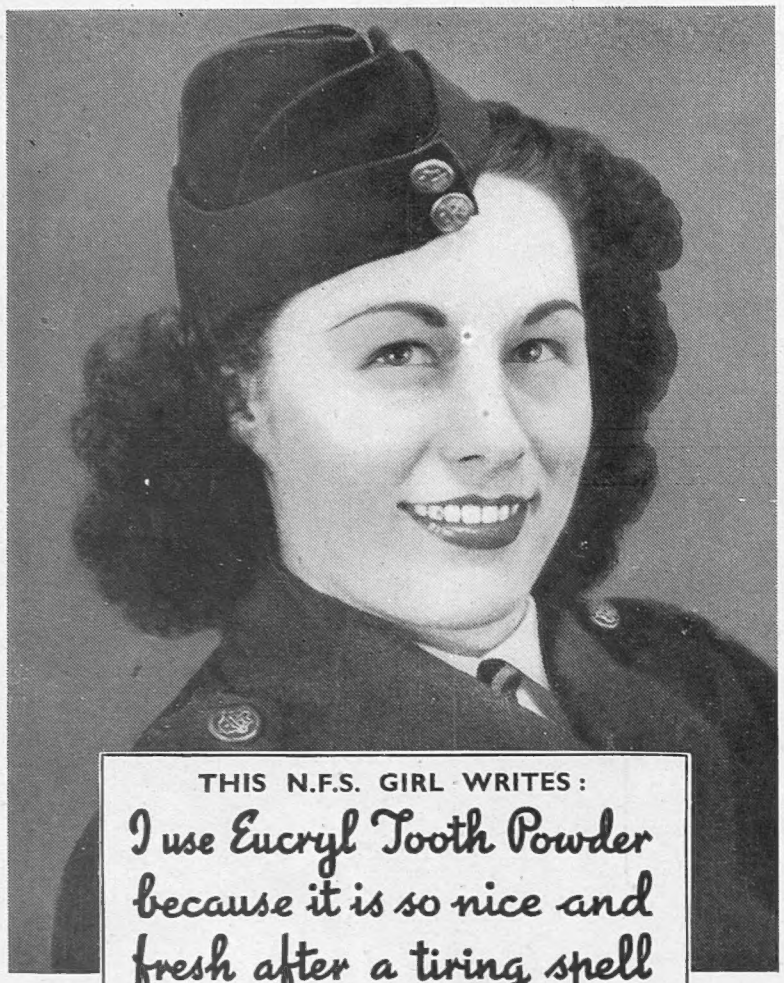

THIS N.F.S. GIRL WRITES:

I use Eucryl Tooth Powder because it is so nice and fresh after a tiring spell of duty.

EUCRYL TOOTH POWDER

SOLD IN TINS 9d. AND 1/3

The better shoes fit, the longer they wear. That's why I get Footprints—Saxone measure both feet.

SAXONE

CIVIL AND SERVICE SHOEMAKERS

40 STRAND, 11 CHEAPSIDE, ETC., LONDON • SHOPS THROUGHOUT THE COUNTRY. M.3c

Traditional quality
OLD SCOTCH WHISKY
in original OLD-FASHIONED FLASK
Unsurpassed in quality, although restricted in distribution by scarcity of old stocks

GRIGOR for VIGOR

WILLIAM GRIGOR & SON INVERNESS

IN QUEST OF GOOD HOTELS

ADVICE BY ASHLEY COURTENAY

Letters, accompanied by a stamped, addressed envelope for reply, should be addressed to him c/o The Editor, THE SPHERE, Commonwealth House, 1, New Oxford Street, London, W.C.1.

BOURNE HALL HOTEL, BOURNEMOUTH

Offers shops, scenery and plenty of sunshine. Provides admirable quarters in a central position. Bridge, Billiards, Warmth and plenty of breathing-space. From 5 gns. per week
Resident Directors: Mr. and Mrs. R. J. Bray.

THE NORFOLK HOTEL
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Here the policy in wartime as in peace has never wavered. To guard zealously their reputation of being known as "One of Britain's finest hotels." Telephones —Number 7272—every room. Active Proprietors: Mr. and Mrs. F. J. McInnes.

"Meet me in the Cocktail Lounge of
The ROYAL CLARENCE HOTEL, Exeter
the rallying ground of the Services"

ASHDOWN FOREST HOTEL, FOREST ROW, SUSSEX

For rest or recreation. 500 ft. up. Bracing air and beautiful surroundings for exploration afoot or on horseback. Two Golf Links adjoining. Fully licensed. Well equipped bedrooms and a chef we are proud of. Tel.: Forest Row 10.

THE GEORGIAN HOTEL
HASLEMERE, SURREY

Spend a Restful Leave at this Charming Country Hotel. Good cooking. Fully licensed. Two acres of "old-world" gardens. Tel. Management—268 for Tariff.

THE HAND HOTEL, LLANGOLLEN

One of the best known and best equipped hotels in North Wales, at entrance to the Welsh Tyrol. Quiet, restful, amidst beautiful scenery. H. and C. running water all bedrooms. Good train service. Close station. Terms from 20s. per day incl. Own salmon fishing Tel.: Llangollen 3207.

COMPLEAT ANGLER HOTEL, MARLOW

Comfort, interesting food, and a good cellar are the recognised characteristics of this well-known Riverside Hotel. Every effort is made to accommodate visitors at short notice. Tel. No. Marlow 15.

MOOR HALL HOTEL & COUNTRY CLUB
NINFIELD, Sussex

Here, 250 ft. up, facing due south, you can get a break from war routine. Fresh produce from our own farm and gardens. Riding fishing and rough shooting. Trains met Crowhurst, Battle, or Bexhill. From 5 gns. Tel.: Ninfield 330.

QUEEN'S HOTEL, PENZANCE

We are still open to those within the protected area and to those entitled to enter it, and we still face the sea, the sun, and the south. For terms apply Manager Tel.: 471/2.

ON WINDERMERE LAKE
LANGDALE CHASE HOTEL
OWN BOATS AND BOAT LANDING BEST EQUIPPED HOTEL IN LAKELAND

You look right, you feel right, and you are right—in an

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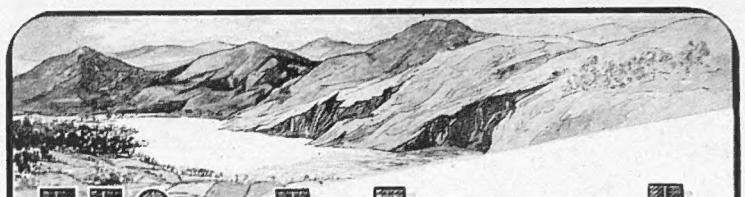
ah! oh!
SOLO

SOLO
means REAL ORANGE JUICE
Remember this bottle—it's the shape of good things to come



Highland Tweeds

Patterns and Prices from
JOHN SCLATER · Kirkwall-Orkney

Lager at its best—

RED TOWER LAGER

Note these Facts

HEADACHE has one thing in common with Rheumatism, Neuritis, Toothache, Sleeplessness, Colds and 'Flu: like them, it can be relieved safely and speedily by two tablets of 'Genasprin'.

There are various sorts of *Headache*. There is the nervy, nagging pain that worry brings on. There is the sharp, insistent misery of neuralgia. There is the over-tired reminder, at the end of a wearing day, that long hours and exacting work must be offset by proper relaxation if your health is not to suffer.

Whatever your type of Headache, two tablets of 'Genasprin' taken in a little water will work wonders with the *pain*. The *cause* of the pain is another matter and may call for a doctor's advice.

'Genasprin' is the *safe* brand of aspirin that will not harm heart or digestion. And fortunately 'Genasprin' is one of the things for which it is no longer necessary to accept a substitute ; you can get it from any chemist at 1/5d. and 2/3d.

'Genasprin' *kills Pain quickly—time it!*

The word 'Genasprin' is the registered trade mark of Genatosan Ltd., Loughborough, Leicestershire.

The Chef *always* recommends

Escoffier

SAUCE ROBERT
SAUCE DIABLE

. . . and with the fruits of Victory Sauce Melba—which made Pêche Melba famous.

Unrivalled Toilet Paper
SUPREME IN WAR-TIME QUALITY & UNEQUALLED IN WAR-TIME VALUE

Bronco
The De Luxe Toilet Paper

Unfortunately the supply of BRONCO is still inadequate to meet the huge demand, with the result that many who have bought Bronco for several years are occasionally unable to obtain supplies.

We deeply regret the disappointment that this must cause ; and we ask the indulgence of all who have been, or may be, disappointed.

Maximum Controlled Prices : Rolls, 1/4 ; Interleaved, 11d. per packet

APPROXIMATELY 700 SHEETS IN EACH ROLL

Sparklets
(REGD. TRADE MARK)

All available supplies of SPARKLETS BULBS are being distributed as equitably as possible. For the present, please "go easy with the soda" and return empty Bulbs promptly to your usual supplier.

HYGIENIC—CONVENIENT—ECONOMICAL

Via Singapore

We've got the blinkin' Zoo here,
But we ain't in Regent's Park;
They never sweep the roads here,
And the jungle's pretty dark;
We've muck up to our eyes here,
And the towns ain't on the map,
A stick can be a snake here,
And a tree may be a Jap.

It's hard tack and compo-rations,
Dirty bilge and bully beef;
There's no time for steak and onions,
When a Jap's behind a leaf.
But by heck! through swamp and mangrove
We shall settle this old score;
We'll be coming back to England—
And that's via Singapore.

SALUTE THE SOLDIER

Salute him with Savings. Ask yourself this: "Am I saving to the utmost limit to back up such men as these? Can I save more . . . to SALUTE THE SOLDIER.

Issued by the National Savings Committee

THE MESSAGE WENT THROUGH

All wars have one battle in common, the battle of communications. It opens with the declaration of war and ends only when the last shot has been fired.

In spite of enemy action, Cable and Wireless communication has never faltered. As the tempo of war rises so does the number of messages flashed across the world.

Approximately two million words pass through the central telegraph station of Cable and Wireless every day.

To meet the growth in traffic, forty-five new transmitting stations have been put into service since the war and more are being added.

Because of this foresight and bold planning *the messages still go through.*

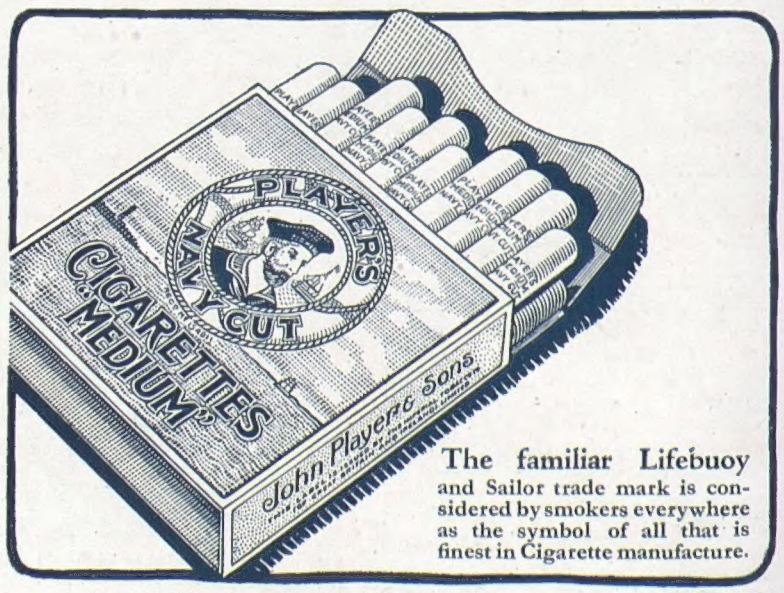
CABLE AND WIRELESS LTD. C AND W

C13

WHAT TIME IS IT 'OVER THERE'?

When it's 12 NOON in LONDON it's about

NORTH AFRICA	MIDDLE EAST	BURMA	SYDNEY
AM	PM	PM	PM



The familiar Lifebuoy and Sailor trade mark is considered by smokers everywhere as the symbol of all that is finest in Cigarette manufacture.

N.G.C. 559.G

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